APPENDIX D
SIMULATION MODELING

This appendix describes the methodology, input data, review process, and results of airfield and airspace simulations for this O'Hare Modernization Environmental Impact Statement (EIS) that were conducted using the Total Airspace & Airport Modeller (TAAM). These simulations were conducted by the City of Chicago's Consultant Team (CCT) with direction, oversight, review, and approval by the FAA and FAA's Third Party Contractor (TPC). TAAM simulation experiments were conducted for scenarios including: Alternative A - No Action, Alternative C, D, and G. See **Chapter 3, Alternatives,** for further description of the alternatives.

D.1 INTRODUCTION

D.1.1 Appendix Organization

The appendix consists of six sections as follow:

- **Section D.1** describes the organization of this appendix.
- **Section D.2** describes the goals and objectives of the TAAM analysis and summarizes the modeling methodology used in the study.
- **Section D.3** describes the "experimental design" that was established for the TAAM analysis. This experimental design includes the airfield configurations, runway operating configurations, weather conditions, and aircraft operations levels that were simulated using TAAM.
- **Section D.4** describes the types of input data that were used in the TAAM analysis and provides references to reports produced by the CCT where detailed descriptions of these input data are provided.
- **Section D.5** describes the process by which EIS TAAM simulations were reviewed and concurred with by the TPC and FAA. **Section D.5** also provides the chronology of FAA Air Traffic Working Group meetings that were held between October 2003 and July 2004 to review TAAM input data and results. It also summarizes the findings and recommendations that arose out of these meetings, which involved representatives from the TPC, FAA Chicago Area Modernization Program Office (CAMPO), FAA Chicago Airports District Office (CHI-ADO), the Chicago O'Hare Airport Traffic Control Tower (ORD Tower), the Chicago O'Hare Terminal Radar Approach Control Facility (C90), and Chicago Air Route Traffic Control Center (ZAU).
- **Section D.6** summarizes TAAM simulation results produced in the analysis.
- **Section D.7** summarizes delay estimates for the non-modeled EIS alternatives.
- **Section D.8** presents a delay comparison of various Build Alternatives.

D.1.2 Airfield Alternative Naming Conventions

The TAAM analysis began before a consistent naming convention was established for the EIS alternatives. As a consequence, different alternative naming conventions were used in TAAM documentation produced by the FAA, TPC, and CCT between August 2003 and August 2004. **Table D-1** summarizes the equivalencies between the alternative naming conventions used in TAAM analysis documentation and the alternative naming conventions used throughout the EIS.

TABLE D-1
AIRFIELD ALTERNATIVE NAMING CONVENTIONS

EIS naming convention	TAAM analysis naming convention
Alternative A (No Action)	No Action
Alternative C	With Project
Alternative D	Alternative X
Alternative G	Alternative Y

The EIS naming convention is used throughout the remainder of this report except in cases where specific TAAM analysis source documentation, which uses the TAAM analysis naming convention, is cited. In cases where TAAM analysis naming conventions are used, EIS naming conventions are included parenthetically to prevent potential confusion.

D.2 SIMULATION ANALYSIS OBJECTIVES AND METHODOLOGY

D.2.1 Simulation Analysis Objectives

The airfield and airspace improvements proposed in the Sponsor's proposed O'Hare Modernization Program, as well as other potential alternative airfield development concepts, would result in a series of complex changes in the way aircraft use airspace routes, runways, taxiways, and terminal facilities. Because of the complex, multifaceted nature of these changes, it was determined that an airfield/airspace simulation model would be used to do the following:

- Determine the nature and magnitude of the capacity and delay issues associated with the existing O'Hare airfield and airspace configuration (i.e., EIS Alternative A [No Action]).
- Determine the extent to which the City of Chicago's proposal (i.e., EIS Alternative C) and other potential airfield/airspace improvement alternatives (i.e., EIS Alternatives D and G) would address airfield and airspace capacity issues associated with Alternative A (No Action).
- Provide input data to EIS noise and air quality analyses. These data include runway use distributions for use in noise modeling, time-in-mode data for aircraft emissions quantification, geographic delay distributions for aircraft emissions hot spot identification, and pollutant dispersion analysis.

D.2.2 Rationale for Use of TAAM

Of several airfield/airspace simulation models currently available in the industry, TAAM was selected for use in the EIS for the following reasons:

- TAAM allowed the definition of prioritized runway and taxiway usage rules, facilitating more realistic simulation of complex, demand-responsive runway, taxiway, and airspace movements.
- TAAM facilitates direct and real-time review of simulation models by air traffic controllers and other subject matter experts.
- TAAM was able to model runway crossings, aircraft pushbacks, and terminal-area congestion more accurately than other available airfield and airspace simulation models, all of which were important considerations in EIS operational analyses.
- TAAM simulation models of the existing O'Hare airfield and airspace configuration and potential airfield and airspace improvements had already been prepared as part of prior planning efforts sponsored by the City of Chicago.

D.2.3 Modeling Process

The CCT developed and ran the TAAM models referenced in this EIS. The TPC and FAA directly oversaw the development of these TAAM models through the establishment of a working group. This working group involved representatives from the following organizations:

- FAA Chicago Area Modernization Program Office (CAMPO)
- FAA Chicago O'Hare International Airport Traffic Control Tower (ORD Tower)
- FAA Chicago O'Hare Terminal Radar Approach Control facility (C90)
- FAA Chicago Air Route Traffic Control Center (ZAU)
- FAA's Third Party Contractor

Representatives from FAA management and the National Air Traffic Controllers Association (NATCA) from all three of the aforementioned air traffic facilities participated in the Air Traffic Working Group.

The modeling process generally followed a nine-step process, as follows:

1. For EIS purposes, four alternatives were modeled using TAAM.
2. Analyses of wind and weather conditions were conducted to determine annual percent occurrences of major runway operating configurations and weather conditions, as well as to determine which of these operating configurations and weather conditions warranted modeling.
3. Future aircraft activity schedules were developed to represent future activity levels of interest in the study. These schedules were selected to represent peak month,

average day (PMAD) conditions in 2007, when Construction Phase I of Alternatives C, D, and G would be completed; 2009, when Construction Phase II of Alternatives C, D, and G would be completed; 2013, when full Build Out of Alternatives C, D, and G would be completed; and 2018, the end of the study period considered in the EIS (Build Out + 5).

4. An experimental design, enumerating the combinations of airfield configurations, runway operating configurations, weather conditions, and aircraft activity levels would be modeled using TAAM, was specified, reviewed, and confirmed by the FAA Air Traffic Working Group.
5. TAAM modeling assumptions for each of the TAAM experiments specified in the experimental design were developed initially by the CCT and reviewed and refined by the TPC and FAA Air Traffic Working Group.
6. Initial TAAM models were developed by the CCT for each of the TAAM experiments specified in the experimental design and reviewed in detail by the FAA Air Traffic Working Group and TPC, which provided written comments and refinements to the CCT.
7. Refined TAAM models were developed by the CCT based on TPC and FAA direction and comments. These refined models were re-reviewed by the TPC and FAA, who provided additional comments and refinements to the CCT if required.
8. When a particular TAAM experiment or set of TAAM experiments were refined to TPC and FAA satisfaction, a memorandum was prepared by the TPC stating that the TPC and FAA concurred with the assumptions used in the model(s) and that the experiment results were acceptable for use in EIS technical analyses. In addition the FAA conducted periodic spot checks on the revised modeling runs.
9. Upon issuance of TPC concurrence memorandum, the CCT produced detailed documentation of final TAAM assumptions, input data, and results.

D.3 TAAM EXPERIMENTAL DESIGN

TAAM was used to evaluate the operational performance of physical airfield development alternatives. These alternatives were Alternative A (No Action), Alternative C, Alternative D, and Alternative G. The FAA and the TPC directed the CCT to develop an experimental design for the TAAM analyses of these alternatives to meet the simulation objectives enumerated in **Section D.2.1, Simulation Analysis Objectives.** This experimental design focused on simulating the assumed primary runway operating configurations and weather conditions

Exhibits D-1 through **D-6** show the final TAAM experimental design that was adopted for the EIS.

- **Exhibit D-1** outlines the experiments for Alternative A (No Action) for the years 2002, 2007, 2009, 2013 and 2018.

- **Exhibit D-2** outlines the experiments for Alternatives C, D and G for the year 2007.
- **Exhibit D-3** outlines the experiments for Alternatives C, D and G for the year 2009.
- **Exhibit D-4** outlines the experiments for Alternative C for the years 2013 and 2018.
- **Exhibit D-5** outlines the experiments for Alternative D for the years 2013 and 2018.
- **Exhibit D-6** outlines the experiments for Alternative G for the years 2013 and 2018.

All of the exhibits provide the estimated annual percent occurrence of the wind and weather conditions associated with each of the TAAM experiments. The occurrences were estimated by the CCT wind and weather data obtained from the National Climatic Data Center for the ten-year period, January 1, 1991 through December 31, 2000. The exhibits also show the peak month, average day (PMAD) demand levels that were simulated in each of the experiments. All inputs to TAAM were independently reviewed and approved for use by FAA and the FAA's TPC.

For Alternative A (No Action), the demand levels are constrained demand levels, reflecting the expectation that if no action is taken at O'Hare, airfield capacity constraints will limit the Airport's ability to accommodate unconstrained demand levels. **Appendix B, Aviation Demand Forecast** provides additional information regarding how the constrained and unconstrained demand levels and associated flight schedules were developed.

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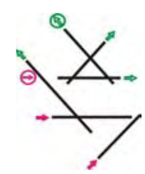
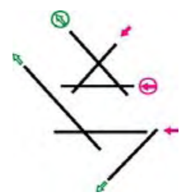
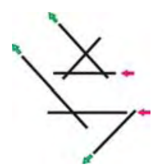
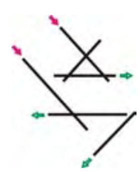
Experiment	Runway Option	Weather	Flow	Runway Configurations	Runway Diagram	Percent Utilization	Demand Level	Operations
1	No Action	VFR	East	Plan X		36.4	2002	2,648
7						27	2007 Constrained	2,750
12							2009 Constrained	2,750
17							2013 Constrained	2,750
22							2018 Constrained	2,750
27							2007 w/ NAR	2,898
2	No Action	VFR	West	Plan W		41.5	2002	2,648
8						46.6	2007 Constrained	2,750
13							2009 Constrained	2,750
18							2013 Constrained	2,750
23							2018 Constrained	2,750
28							2007 w/ NAR	2,898
3	No Action	VFR	South	Plan B		11.8	2002	2,648
9						17.1	2007 Constrained	2,750
14							2009 Constrained	2,750
19							2013 Constrained	2,750
24							2018 Constrained	2,750
29							2007 w/ NAR	2,898
4	No Action	VFR	South	Plan B Modified		4.3	2002	2,648
5	No Action	IFR	West	Parallel 27s		3.8	2002	2,648
10						6.0	2007 Constrained	2,750
15							2009 Constrained	2,750
20							2013 Constrained	2,750
25							2018 Constrained	2,750
30							2007 w/ NAR	2,898
6	No Action	IFR	East	Parallel 14s		2.2	2002	2,648
11						3.3	2007 Constrained	2,750
16							2009 Constrained	2,750
21							2013 Constrained	2,750
26							2018 Constrained	2,750
31							2007 w/ NAR	2,898

Existing Runways
Proposed Runways
Departure Purposes Only
Closed
Primary Arrivals
Primary Departures
Overflow Departures
Overflow Arrivals
Overflow Arrivals Dependent on use of Departure Overflow Runway
Overflow Departures Dependent on use of Arrival Overflow Runway

VFR conditions assume visibility is greater than or equal to 3 miles and cloud ceiling is greater than or equal to 1,000 feet
IFR conditions assume visibility is less than 3 miles and/or cloud ceiling is less than 1,000 feet

Source: Ricondo & Associates, 2004.

Chicago O'Hare International Airport

O'Hare Modernization Environmental Impact Statement

Experimental Design for Alternative A

Exhibit D-1

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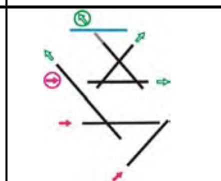
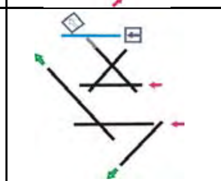
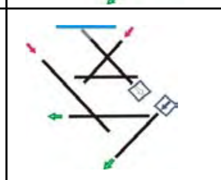
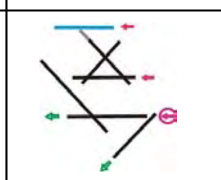
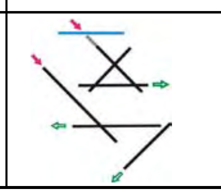
Experiment	Runway Option	Weather	Flow	Runway Configurations	Runway Diagram	Percent Utilization	Demand Level	Operations
32	2007 North Runway	VFR	East	Plan X		23.1	2007	2,898
50	2007 North Runway	VFR	West	Parallel 27s		57.0	2007	2,898
34	2007 North Runway	VFR	South	Plan B		10.6	2007	2,898
35	2007 North Runway	IFR	West	Parallel 27s		6.0	2007	2,898
37	2007 North Runway	IFR	South	Parallel 14s		3.3	2007	2,898

Existing Runways

Proposed Runways

Departure Purposes Only

Closed

Primary Arrivals

Primary Departures

Overflow Departures

Overflow Arrivals

Overflow Arrivals Dependent on use of Departure Overflow Runway

Overflow Departures Dependent on use of Arrival Overflow Runway

VFR conditions assume visibility is greater than or equal to 3 miles and cloud ceiling is greater than or equal to 1,000 feet
IFR conditions assume visibility is less than 3 miles and/or cloud ceiling is less than 1,000 feet

Source: Ricondo & Associates, 2004.

2007 Experimental Design for Alternatives C, D, & G

Exhibit D-2

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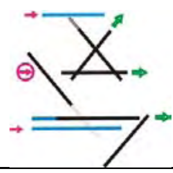
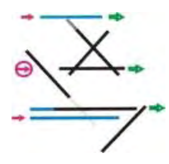
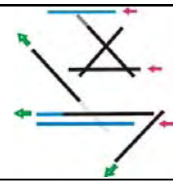
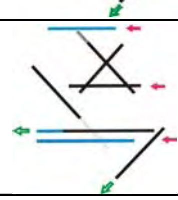
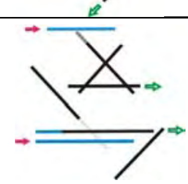
Experiment	Runway Option	Weather	Flow	Runway Configurations	Runway Diagram	Percent Utilization	Demand Level	Operations
38	2009 Closely Spaced South Runway	VFR-3 [1/]	East	Parallel 9s		17.9	2009	2,987
39	2009 Closely Spaced South Runway	VFR-4 [2/]	East	Parallel 9s		5.2	2009	2,987
41	2009 Closely Spaced South Runway	VFR	West	Parallel 27s		67.6	2009	2,987
42	2009 Closely Spaced South Runway	IFR	West	Parallel 27s		4.8	2009	2,987
43	2009 Closely Spaced South Runway	IFR	East	Parallel 9s		4.5	2009	2,987

Existing Runways

Proposed Runways

Departure Purposes Only

Closed

Primary Arrivals

Primary Departures

Overflow Departures

Overflow Arrivals

Overflow Arrivals Dependent on use of Departure Overflow Runway

Overflow Departures Dependent on use of Arrival Overflow Runway

VFR conditions assume visibility is greater than or equal to 3 miles and cloud ceiling is greater than or equal to 1,000 feet
IFR conditions assume visibility is less than 3 miles and/or cloud ceiling is less than 1,000 feet

Source: Ricondo & Associates, 2004.

2009 Experimental Design for Alternatives C, D, & G

Exhibit D-3

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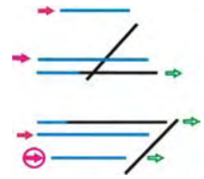
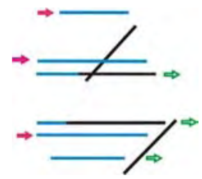
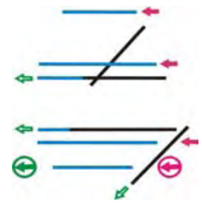
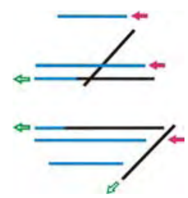
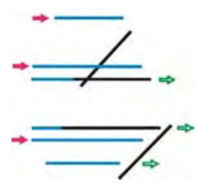
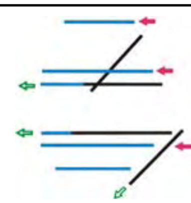
Experiment	Runway Option	Weather	Flow	Runway Configurations	Runway Diagram	Percent Utilization	Demand Level	Operations
44	Alternative C	VFR-1 [3/]	East	Parallel 9s (Quads)		12.6	2013	3,169
33							2018	3,374
45	Alternative C	VFR-2 [4/]	East	Parallel 9s (Trips)		10.6	2013	3,169
51							2018	3,374
46	Alternative C	VFR-1 [3/]	West	Parallel 27s (Quads)		41.4	2013	3,169
52							2018	3,374
47	Alternative C	VFR-2 [4/]	West	Parallel 27s (Trips)		26.1	2013	3,169
53							2018	3,374
48	Alternative C	IFR	East	Parallel 9s		4.5	2013	3,169
54							2018	3,374
49	Alternative C	IFR	West	Parallel 27s		4.8	2013	3,169
55							2018	3,169

Existing Runways
Proposed Runways
Departure Purposes Only
Closed
Primary Arrivals
Primary Departures
Overflow Departures
Overflow Arrivals
Overflow Arrivals Dependent on use of Departure Overflow Runway
Overflow Departures Dependent on use of Arrival Overflow Runway

VFR conditions assume visibility is greater than or equal to 3 miles and cloud ceiling is greater than or equal to 1,000 feet
IFR conditions assume visibility is less than 3 miles and/or cloud ceiling is less than 1,000 feet

Source: Ricondo & Associates, 2004.

Experimental Design for Alternative C

Exhibit D-4

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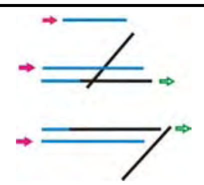
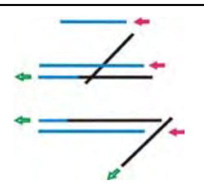
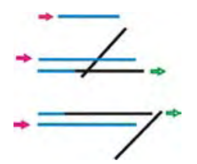
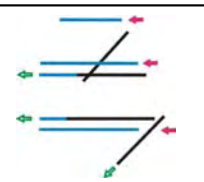
Experiment	Runway Option	Weather	Flow	Runway Configurations	Runway Diagram	Percent Utilization	Demand Level	Operations
56	Alternative D	VFR	East	Parallel 9s		23.2	2013	3,169
60							2018	3,374
57	Alternative D	VFR	West	Parallel 27s		67.5	2013	3,169
61							2018	3,374
58	Alternative D	IFR	East	Parallel 9s		4.5	2013	3,169
62							2018	3,374
59	Alternative D	IFR	West	Parallel 27s		4.8	2013	3,169
63							2018	3,374

Existing Runways
Proposed Runways
Departure Purposes Only
Closed
Primary Arrivals
Primary Departures
Overflow Departures
Overflow Arrivals
Overflow Arrivals Dependent on use of Departure Overflow Runway
Overflow Departures Dependent on use of Arrival Overflow Runway

VFR conditions assume visibility is greater than or equal to 3 miles and cloud ceiling is greater than or equal to 1,000 feet
IFR conditions assume visibility is less than 3 miles and/or cloud ceiling is less than 1,000 feet

Source: Ricondo & Associates, 2004.

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O'Hare Modernization
Environmental Impact Statement

Experimental Design for Alternative D

Exhibit D-5

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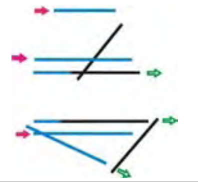
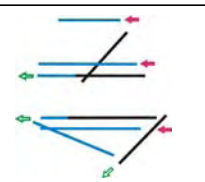
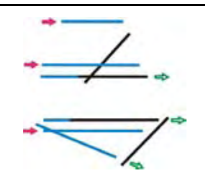
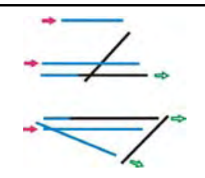
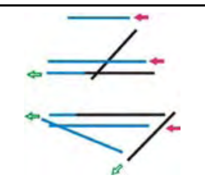
Experiment	Runway Option	Weather	Flow	Runway Configurations	Runway Diagram	Percent Utilization	Demand Level	Operations
64	Alternative G	VFR	East	Parallel 9s		23.2	2013	3,169
69							2018	3,374
65	Alternative G	VFR	West	Parallel 27s		67.5	2013	3,169
70							2018	3,374
66	Alternative G	IFR-1 [5/]	East	Parallel 9s		1.1	2013	3,169
71							2018	3,374
67	Alternative G	IFR-2 [6/]	East	Parallel 9s		3.4	2013	3,169
72							2018	3,374
68	Alternative G	IFR	West	Parallel 27s		4.8	2013	3,169
73							2018	3,374

Existing Runways
Proposed Runways
Departure Purposes Only
Closed
Primary Arrivals
Primary Departures
Overflow Departures
Overflow Arrivals
Overflow Arrivals Dependent on use of Departure Overflow Runway
Overflow Departures Dependent on use of Arrival Overflow Runway

VFR conditions assume visibility is greater than or equal to 3 miles and cloud ceiling is greater than or equal to 1,000 feet
IFR conditions assume visibility is less than 3 miles and/or cloud ceiling is less than 1,000 feet

Source: Ricondo & Associates, 2004.

Experimental Design for Alternative G

Exhibit D-6

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D.4 TAAM INPUT DATA AND ASSUMPTIONS

TAAM input data and assumptions include existing and future flight schedules, airspace route structures, air traffic control rules and procedures, runway operating configuration assumptions, ground control rules and procedures (including taxiway use restrictions and taxiing speeds), airfield layouts, and aircraft gate and parking position assignments.

Input data and assumptions used in the TAAM analysis conducted in support of this EIS are described in detail in a series of "data packages" produced by Ricondo & Associates, which led the TAAM modeling effort on behalf of the CCT. Separate documents were produced for each simulated airfield alternative (i.e., Alternative A [No Action], Alternative C, Alternative D, and Alternative G). **Table D-2** summarizes the set of final data packages that were produced, together with their publication dates. These data packages (including over 7 million pages of documents)—as well as TAAM project files and associated correspondence between the FAA and TPC to/from the CCT—are available in electronic format on the FAA's O'Hare Modernization EIS website:

http://www.agl.faa.gov/omp/eistechsim/TAAM.htm.

Refer to these data packages for additional information regarding TAAM modeling assumptions, which include the following:

- Weather condition and runway use assumptions
- Runway crossing assumptions
- Aircraft separation assumptions
- Airfield layouts
- Airline gate assignments
- Runway and taxiway use assumptions
- Taxiing speeds
- Runway dependencies
- Land and hold short procedures
- Intersection departure procedures
- Noise abatement procedures
- Airspace route structures

These data packages and correspondence are herein incorporated by reference into this EIS. As described in greater detail in the following section, the FAA and the FAA's TPC independently reviewed and approved all TAAM simulation experiment results utilized within this EIS. An excerpt from one of these data packages, *TAAM Simulation Data for Noise and Air Quality Analysis, 2018 With Project,*[1] dated April 2004, is provided in **Attachment D-1** for reference.

[1] TAAM Simulation Data for Noise and Air Quality Analysis, 2018 With Project, Ricondo and Associates, Inc. [CCT], April 2004.

TABLE D-2
TAAM DATA PACKAGES

EIS Alternative	Demand year	Title (a)	Issue date
Alternative A	2002	TAAM Simulation Data for Noise and Air Quality Analysis	January 2004
(No Action)	2007	TAAM Simulation Data for Noise and Air Quality Analysis: 2007 No Action	February 2004 (b)
	2007	TAAM Simulation Data for Noise and Air Quality Analysis: 2007 No Action with NAR	February 2004
	2007	TAAM Simulation Data for Noise and Air Quality Analysis: 2007 No Action	July 2004
	2009	TAAM Simulation Data for Noise and Air Quality Analysis: 2009 No Action	July 2004
	2013	TAAM Simulation Data for Noise and Air Quality Analysis: 2013 No Action	July 2004
	2018	TAAM Simulation Data for Noise and Air Quality Analysis: 2018 No Action	July 2004
Alternative C	2007	TAAM Simulation Data for Noise and Air Quality Analysis: 2007 With Project	February 2004 (b)
	2007	TAAM Simulation Data for Noise and Air Quality Analysis: 2007 With Project	April 2004
	2009	TAAM Simulation Data for Noise and Air Quality Analysis: 2009 With Project	April 2004
	2013	TAAM Simulation Data for Noise and Air Quality Analysis: 2013 With Project	April 2004
	2018	TAAM Simulation Data for Noise and Air Quality Analysis: 2018 With Project	April 2004
Alternative D *(c)*	2013	TAAM Simulation Data for Noise and Air Quality Analysis: Alternative X	May 2004
	2018	TAAM Simulation Data for Noise and Air Quality Analysis: Alternative X	May 2004
Alternative G *(c)*	2013	TAAM Simulation Data for Noise and Air Quality Analysis: Alternative Y	May 2004
	2018	TAAM Simulation Data for Noise and Air Quality Analysis: Alternative Y	May 2004

Notes:

(a) All data packages consisted of two physical volumes. The volumes were produced by Ricondo and Associates, Inc. [CCT] in all cases.

(b) These two data packages for 2007 No Action and With Project were superseded by the 2007 No Action and With Project data packages dated July 2004 and April 2004, respectively.

(c) Alternatives D and G at the 2007 and 2009 demand years are identical to Alternative C.

D.5 FAA/TPC/CCT REVIEW PROCESS

The FAA and TPC participated in an intensive, twelve month review process during this study. The objective of this process was to ensure that TAAM input assumptions, modeling methodologies, and output data conformed to industry best modeling practices and accurately reflected air traffic control rules and procedures. This review process involved representatives from the TPC and the FAA Air Traffic Working Group.

This review process began in August 2003, with concurrent TPC and FAA Air Traffic Working Group reviews of TAAM simulation experiments that had been produced as part of preliminary CCT planning efforts. During the fall of 2003, the TPC and FAA Air Traffic Working Group reviewed initial sets of TAAM assumptions provided by the CCT as well as the preliminary experimental design for the study.

The TPC and FAA Air Traffic Working Group met as needed during the Fall of 2003 to (1) review TAAM modeling assumptions—including those related to aircraft gating, airfield and airspace use, airspace structure, preferred taxiway routings, runway crossings, and airspace procedures, (2) review and approve the TAAM experimental design for the EIS, and (3) review and approve delay annualization methodologies.

Beginning in December 2003, the TPC and FAA Air Traffic Working Group began conducting multi-day review sessions at the FAA Great Lakes Regional Office. During these sessions, the

TPC and FAA reviewed each individual TAAM experiment prepared by the CCT for use in the EIS. In these review sessions, TPC TAAM experts and FAA Air Traffic Working Group members: (1) evaluated preliminary TAAM results, (2) reviewed TAAM input assumptions, (3) verified correct use of these assumptions in TAAM, and (4) watched full animations of each TAAM experiment. **Table D-3** lists the nine review sessions that were held and the TAAM experiments that were reviewed during the sessions.

TABLE D-3
FAA/TPC TAAM REVIEW SESSIONS

Dates	TAAM Experiments Reviewed
December 29-31, 2003	2002 Alternative A (No Action) experiments
January 12-16, 2004	2007 Alternative A (No Action) and Alternative C experiments
January 20-23, 2004	2018 Alternative A (No Action) and Alternative C experiments
February 2-6, 2004	2018 Alternative A (No Action) and Alternative C experiments
February 16-20, 2004	2013 Alternative A (No Action) and Alternative C experiments
March 1-5, 2004	2009 Alternative A (No Action) and Alternative C experiments
March 22-26, 2004	2013 and 2018 Alternative D and Alternative G experiments
June 21-24, 2004	Revised 2007, 2009, 2013, and 2018 Alternative A (No Action) experiments
June 28- July 1, 2004	Revised 2007, 2009, 2013, and 2018 Alternative A (No Action) experiments

In addition to these review sessions, the TPC produced a series of technical memoranda and other written communications regarding the TAAM model reviews. These technical memoranda are herein incorporated by reference into this EIS. For exemplary purposes, a technical memorandum concurring with the 2018 Alternative C experiments is included as **Attachment D-2.** Electronic versions of these communications are available on the FAA's EIS website:

http://www.agl.faa.gov/omp/eistechsim/TAAM.htm.

In addition to the written technical memoranda, the FAA issued two memoranda regarding the TAAM modeling conducted for the EIS. The first memorandum was issued by FAA's Air Traffic workgroup, dated December 16, 2004 and is included as **Attachment D-3** to this appendix. The second memorandum was issued by FAA's Chicago Airports District Office, dated December 17, 2004. The December 17, 2004 memorandum stated:

> …the process FAA employed in this TAAM analysis is unprecedented in the scope and breadth of modeling effort and review for any simulation analysis ever conducted for any single airport. At the end of the TAAM analysis, 109 TAAM experiments were conducted in support of this EIS (73 experiments specifically for the environmental analysis and 36 experiments to support the Alternatives Chapter). The FAA AT workgroup invested approximately 1400 hours reviewing assumptions, draft results, animations, and final results as part of the process. The FAA's Third Party Contractor invested approximately 650 hours…

This memorandum is included in its entirety as **Attachment D-4** to this appendix.

D.6 TAAM RESULTS

This section summarizes the estimates of average aircraft delay that were developed using TAAM. More detailed TAAM results and output files are provided in the TAAM data packages enumerated in **Table D-2.** Output data included in the data packages include:

- Total modeled operations (arrivals and departures)
- Operations during peak-15 minute and peak hourly periods
- Rolling hourly counts of aircraft operations
- Average aircraft delays by phase of flight

In addition, the data packages include output files generated directly by TAAM, which were used in subsequent air quality and noise modeling efforts conducted for the EIS. These data include localized delay estimates, departure runway queue characteristics, aircraft fleet mix data, and runway and flight track utilization data.

D.6.1 Definition of Delay

The following sections present summary delay results for each of the modeled airfield development alternatives. These delay estimates represent the "excess travel time" that modeled aircraft experience as a result of the presence of other aircraft in the simulation. These excess travel time delays are computed by subtracting the simulated aircraft travel time from an unimpeded travel time (i.e., the time it would take for the aircraft to fly from its origin airport to its destination airport if it did not encounter any other aircraft en route). The tables in the following sections present excess travel time delays estimated for peak month, average day (PMAD) conditions for individual combinations of runway operating configuration and weather conditions. In addition, estimates of average annual delays, which have been calculated by weighting PMAD delays by their respective percent occurrences and adjusting the resulting weighted average to account for the fact that average annual demand levels are lower than PMAD demand levels. Additional information regarding the methodology used to compute these delays is provided in the TAAM data packages referenced in **Table D-2.**

D.6.2 Alternative A (No Action) Delay Estimates

Table D-4 presents comparative aircraft delay estimates for Alternative A (No Action). The table shows the delay that was estimated using TAAM for PMAD activity levels, as well as the weighted average annual delay estimates for Alternative A (No Action) at the 2007, 2009, 2013, and 2018 demand levels.

It is important to recognize that the delay results presented in **Table D-4** were generated using constrained aircraft flight schedules, which reflect the inability of Alternative A (No Action) to accommodate anticipated growth in aviation activity at the Airport within acceptable levels of delay. The methodology used to develop the constrained flight schedules can be found in **Appendix B, Aviation Demand Forecast.**

TABLE D-4
ESTIMATED AVERAGE AIRCRAFT DELAYS: ALTERNATIVE A (NO ACTION) FOR ALL PHASES (CONSTRAINED SCHEDULE)

Runway Use Configuration	Weather Condition (a)	Estimated Annual Percent Occurrence	Average delay: Peak Month, Average Day Conditions (minutes per operation)			
			2007	2009	2013	2018
Plan X	VFR	27.0%	10.4	9.8	10.4	10.2
Plan W	VFR	46.6%	8.2	8.1	8.9	8.8
Plan B	VFR	17.1%	27.3	27.1	30.6	31.0
Parallel 27s	IFR	6.0%	48.2	46.5	48.7	48.9
Parallel 9s	IFR	3.3%	82.1	83.1	84.3	84.0
Average annual delay (minutes per operation)			16.2	15.9	17.2	17.1
Peak month, average day aircraft operations (b)			2,750	2,750	2,750	2,750

Notes:

(a) VFR conditions occur when the cloud ceiling is at least 1,000 feet above the Airport's elevation and visibility is at least 3 statute miles. IFR conditions occur when the cloud ceiling is less than 1,000 feet above the Airport's elevation or visibility is less than 3 statute miles.

(b) This level of operations was constrained reflecting the inability of Alternative A (No Action) to accommodate unconstrained demand levels at acceptable levels of delay.

Sources:

TAAM Simulation Data for Noise and Air Quality Analysis, 2007 No Action, Ricondo and Associates, Inc. [CCT], July 2004;

TAAM Simulation Data for Noise and Air Quality Analysis, 2009 No Action, Ricondo and Associates, Inc. [CCT], July 2004;

TAAM Simulation Data for Noise and Air Quality Analysis, 2013 No Action, Ricondo and Associates, Inc. [CCT], July 2004;

TAAM Simulation Data for Noise and Air Quality Analysis, 2018 No Action, Ricondo and Associates, Inc. [CCT], July 2004.

D.6.3 Alternative C Delay Estimates

Tables D-5, D-6, and **D-7** present comparative aircraft delay results for Alternative C. The tables show the delay that was estimated using TAAM for PMAD activity levels, as well as the weighted average annual delay estimates for Alternative C at the 2007, 2009, 2013, and 2018 demand levels.

Table D-5 presents delay estimates for the first construction phase of Alternative C, in which a new 7,500 foot long Runway 9L/27R would be constructed on the far north side of the airfield.

TABLE D-5
ESTIMATED AVERAGE AIRCRAFT DELAYS: ALTERNATIVE C—CONSTRUCTION PHASE I

Runway Use Configuration	Weather Condition (a)	Estimated Annual Percent Occurrence	Average delay: Peak Month, Average Day Conditions 2007 demand (minutes per operation)
Plan X	VFR	23.1%	16.1
Parallel 27s	VFR	57.0%	5.8
Plan B	VFR	10.6%	35.5
Parallel 27s	IFR	6.0%	31.8
Parallel 14s	IFR	3.3%	105.4
Average annual delay (minutes per operation)			15.5
Peak month, average day aircraft operations			2,898

Notes:

(a) VFR conditions occur when the cloud ceiling is at least 1,000 feet above the Airport's elevation and visibility is at least 3 statute miles. IFR conditions occur when the cloud ceiling is less than 1,000 feet above the Airport's elevation or visibility is less than 3 statute miles.

Sources:

TAAM Simulation Data for Noise and Air Quality Analysis, 2007 With Project, Ricondo and Associates, Inc. [CCT], April 2004.

Table D-6 presents delay results for Construction Phase II of Alternative C, in which a 10,800 foot long Runway 10C/28C would be constructed and Runway 10L/28R (existing Runway 9R/27L) would be extended to a length of 13,000 feet.

TABLE D-6
ESTIMATED AVERAGE AIRCRAFT DELAYS: ALTERNATIVE C—CONSTRUCTION PHASE II

Runway Use Configuration	Weather Condition (a)	Estimated Annual Percent Occurrence	Average delay: Peak Month, Average Day Conditions (minutes per operation) (b) 2009	2013 (c)
Parallel 27s	VFR-3 / VFR-4	67.6%	5.2	6.5
Parallel 9s	VFR-3	17.9%	9.4	15.3
Parallel 9s	VFR-4	5.2%	13.7	22.6
Parallel 27s	IFR	4.8%	30.2	46.2
Parallel 9s	IFR	4.5%	75.8	95.8
Average annual delay (minutes per operation)			10.3	14.2
Peak month, average day aircraft operations			2,987	3,169

Notes:

(a) VFR-3 conditions occur when the cloud ceiling is at least 3,000 feet above the Airport's elevation and visibility is at least 5 statute miles. VFR-4 conditions occur when the cloud ceiling is less than 3,000 feet above the Airport's elevation but is at least 1,000 feet above the Airport's elevation or when visibility is less than 5 statute miles but is at least 3 statute miles. IFR conditions occur when the cloud ceiling is less than 1,000 feet above the Airport's elevation or visibility is less than 3 miles.

(b) These delay estimates apply to the second phase of Alternative C, in which new Runway 10C / 28C would be constructed and Runway 10L / 28R (existing Runway 9R / 27L) would be extended.

(c) Hypothetical delay estimates assuming that the City of Chicago retains the Construction Phase II operating configuration through 2013.

Sources:

TAAM Simulation Data for Noise and Air Quality Analysis, 2009 With Project, Ricondo and Associates, Inc. [CCT], April 2004;

Transmittal Memorandum, "Revisions OMP EIS – Need for Additional TAAM Experiments", Ricondo and Associates, Inc. [CCT], August 27, 2004.

Table D-7 presents delay results for the full build out of the eight-runway Alternative C airfield configuration.

TABLE D-7
ESTIMATED AVERAGE AIRCRAFT DELAYS:
ALTERNATIVE C—BUILD OUT & BUILD OUT+ 5

Runway Use Configuration	Weather Condition (a)	Estimated Annual Percent Occurrence	Average delay: Peak Month, Average Day Conditions (minutes per operation) (b)		
			2009 (c)	2013	2018
Parallel 27s	VFR-1	41.4%	3.8	4.1	4.7
Parallel 9s	VFR-1	12.6%	3.3	3.7	4.2
Parallel 27s	VFR-2	26.1%	3.7	4.2	5.0
Parallel 9s	VFR-2	10.6%	3.5	4.2	4.6
Parallel 27s	IFR	4.8%	9.5	16.0	18.8
Parallel 9s	IFR	4.5%	11.9	17.2	20.8
Average annual delay (minutes per operation)			4.1	5.0	5.8
Peak month, average day aircraft operations			2,987	3,169	3,374

Notes:

(a) VFR-1 conditions occur when the cloud ceiling is at least 5,500 feet above the Airport's elevation and visibility is at least 10 statute miles. VFR-2 conditions occur when the cloud ceiling is less than 5,500 feet above the Airport's elevation but is at least 1,000 feet above the Airport's elevation or when visibility is less than 10 statute miles but is at least 3 statute miles. IFR conditions occur when the cloud ceiling is less than 1,000 feet above the Airport's elevation or visibility is less than 3 miles.

(b) These delay estimates presume that the full build out of the eight-runway Alternative C airfield is completed.

(c) Hypothetical results assuming that Alternative C could be built out by 2009.

Sources:

TAAM Simulation Data for Noise and Air Quality Analysis, 2013 With Project, Ricondo and Associates, Inc. [CCT], April 2004;

TAAM Simulation Data for Noise and Air Quality Analysis, 2018 With Project, Ricondo and Associates, Inc. [CCT], April 2004;

Transmittal Memorandum, "Revisions OMP EIS – Need for Additional TAAM Experiments", Ricondo and Associates, Inc. [CCT], August 27, 2004.

D.6.4 Alternative D Delay Estimates

Table D-8 presents comparative aircraft delay results for the Build Out and Build Out + 5 years of Alternative D. The table shows the delay that was estimated using TAAM for PMAD activity levels, as well as the weighted average annual delay estimates for Alternative D at the 2009, 2013 and 2018 demand levels. Because the construction phasing assumptions associated with Alternative D would result in identical airfield configurations to Alternative C, delay results for Alternative D's Construction Phase 1 and 2 would be identical to the values estimated for Alternative C and shown in **Tables D-5** and **D-6.**

TABLE D-8
ESTIMATED AVERAGE AIRCRAFT DELAYS:
ALTERNATIVE D—BUILD OUT & BUILD OUT +5

Runway Use Configuration	Weather Condition (a)	Estimated Annual Percent Occurrence	Average delay: Peak Month, Average Day Conditions (minutes per operation) (b)		
			2009 (c)	2013	2018
Parallel 27s	VFR	67.5%	3.7	4.2	5.0
Parallel 9s	VFR	23.2%	4.6	4.9	7.8
Parallel 27s	IFR	4.8%	9.5	16.0	18.8
Parallel 9s	IFR	4.5%	62.9	84.6	108.4
Average annual delay (minutes per operation)			6.6	8.2	10.5
Peak month, average day aircraft operations			2,987	3,169	3,374

Notes:

(a) VFR conditions occur when the cloud ceiling is at least 1,000 feet above the Airport's elevation and visibility is at least 3 statute miles. IFR conditions occur when the cloud ceiling is less than 1,000 feet above the Airport's elevation or visibility is less than 3 statute miles.

(b) These delay estimates presume that the full build-out of the seven-runway Alternative D airfield is completed.

(c) Hypothetical results assuming that Alternative D could be built out by 2009.

Sources:

Transmittal Memorandum, "Revisions OMP EIS—Need for Additional TAAM Experiments", Ricondo and Associates, Inc. [TPC], May 14, 2004;

TAAM Simulation Data for Noise and Air Quality Analysis, 2013 Alternative X, Ricondo and Associates, Inc. [CCT], May 2004;

TAAM Simulation Data for Noise and Air Quality Analysis, 2018 Alternative X, Ricondo and Associates, Inc. [CCT], May 2004.

D.6.5 Alternative G Delay Estimates

Table D-9 presents comparative aircraft delay results for the Build Out and Build Out + 5 years of Alternative G. The table shows the delay that was estimated using TAAM for PMAD activity levels, as well as the weighted average annual delay estimates for Alternative G at the 2009, 2013, and 2018 demand levels. Because the construction phasing assumptions associated with Alternative G would result in identical airfield configurations to Alternative C, delay results for Alternative G's Construction Phases 1 and 2 would be identical to the values estimate for Alternative C and shown in **Tables D-5** and **D-6.**

TABLE D-9
ESTIMATED AVERAGE AIRCRAFT DELAYS:
ALTERNATIVE G—BUILD OUT AND BUILD OUT + 5

Runway Use Configuration	Weather Condition (a)	Estimated Annual Percent Occurrence	Average delay: Peak Month, Average Day Conditions (minutes per operation) (b) 2009 (c)	2013	2018
Parallel 27s	VFR	67.5%	3.7	4.2	5.0
Parallel 9s	VFR	23.2%	3.4	4.1	5.2
Parallel 27s	IFR-1 / IFR-2	4.8%	9.5	16.0	18.8
Parallel 9s	IFR-1	1.1%	12.0	15.5	20.3
Parallel 9s	IFR-2	3.4%	22.6	31.0	42.6
Average annual delay (minutes per operation)			4.4	5.6	6.9
Peak month, average day aircraft operations			2,987	3,169	3,374

Notes:
(a) VFR-1 conditions occur when the cloud ceiling is at least 5,500 feet above the Airport's elevation and visibility is at least 10 statute miles. VFR-2 conditions occur when the cloud ceiling is less than 5,500 feet above the Airport's elevation but is at least 1,000 feet above the Airport's elevation or when visibility is less than 10 statute miles but is at least 3 statute miles. IFR conditions occur when the cloud ceiling is less than 1,000 feet above the Airport's elevation or visibility is less than 3 statute miles.
(b) These delay estimates presume that the full build-out of the eight-runway Alternative G airfield is completed.
(c) Hypothetical results assuming that Alternative G could be built out by 2009.

Sources:
TAAM Simulation Data for Noise and Air Quality Analysis, 2013 Alternative Y, Ricondo and Associates, Inc. [CCT], May 2004;
TAAM Simulation Data for Noise and Air Quality Analysis, 2018 Alternative Y, Ricondo and Associates, Inc. [CCT], May 2004;
Transmittal Memorandum, "Revisions OMP EIS—Need for Additional TAAM Experiments", Ricondo and Associates, Inc. [TPC], August 27, 2004.

D.7 ESTIMATED DELAYS FOR NON-MODELED ALTERNATIVES

Proposed runway development Alternatives B, E, and F were not modeled explicitly with TAAM in this modeling effort either because (1) they closely resembled one of development alternatives that was modeled explicitly (i.e., Alternatives B and F) or (2) qualitative assessment indicated that the alternative would perform more poorly than a modeled alternative (i.e., Alternative E). The following paragraphs describe the expected delays associated with these non-modeled alternatives.

D.7.1 Alternative B Delay Estimates

Alternative B is a limited development alternative that was included in the screening process. This alternative is equivalent to the Alternative C airfield after Construction Phase II—that is, two proposed new runways (Runway 9L/27R and Runway 10C/28C)—but no further development after this phase. Thus, TAAM results generated for Alternative C (Construction Phase II) were used to estimate delays for Alternative B.

D.7.2 Alternative E Delay Estimates

Alternative E is an alternative that is very similar to Alternative D—development of all but one runway (Runway 9L/27R) of the full Build Out Alternative C. Based on review of the likely operational configurations of Alternative E, it was estimated that delays would be similar in some configurations and higher (worse) in others. Overall, it was estimated that average delays for Alternative E would be higher than for Alternative D.

D.7.3 Alternative F Delay Estimates

Alternative F is the same as Alternative C, plus an additional Runway 12/30. Alternative F was studied in detail in an earlier modeling effort performed by the City of Chicago at the request of and in coordination with FAA. This earlier modeling effort, termed the *Runway 12/30 "Proof of Concept" Evaluation* [2] was conducted during the summer of 2003. In this modeling effort, it was estimated that average delays would be slightly higher than those for Alternative C. However, given that Alternative F has the same runways as Alternative C, as well as an additional runway (12/30), Alternative F if implemented could be operated in the same way as Alternative C. In other words, Runway 12/30, while included in Alternative F, would seldom be used. Therefore, it can be said that the annual average delays could be the same as Alternative C.

D.8 DELAY COMPARISON

Exhibit D-7 shows how average annual delays would be expected to grow for Alternatives B, C, D, and G as aviation activity levels increase at the Airport for the forecast period. For example, average annual delays for Alternative D would be approximately 6.0 minutes, 6.5 minutes, 8.0 minutes, and 10.5 minutes per operation in 2007, 2009, 2013 and 2018 respectively. The delay levels associated with Alternative A exceed the delay levels depicted in **Exhibit D-7** at demand levels lower than 1 million annual operations and, consequently, are not depicted in the figure. The delay curves graphed in **Exhibit D-7** are superimposed atop one another to depict a composite delay graph that indicates how average annual delays would evolve as the various EIS alternatives are constructed, as shown in **Exhibits D-8, D-9, D-10** and **D-11.**

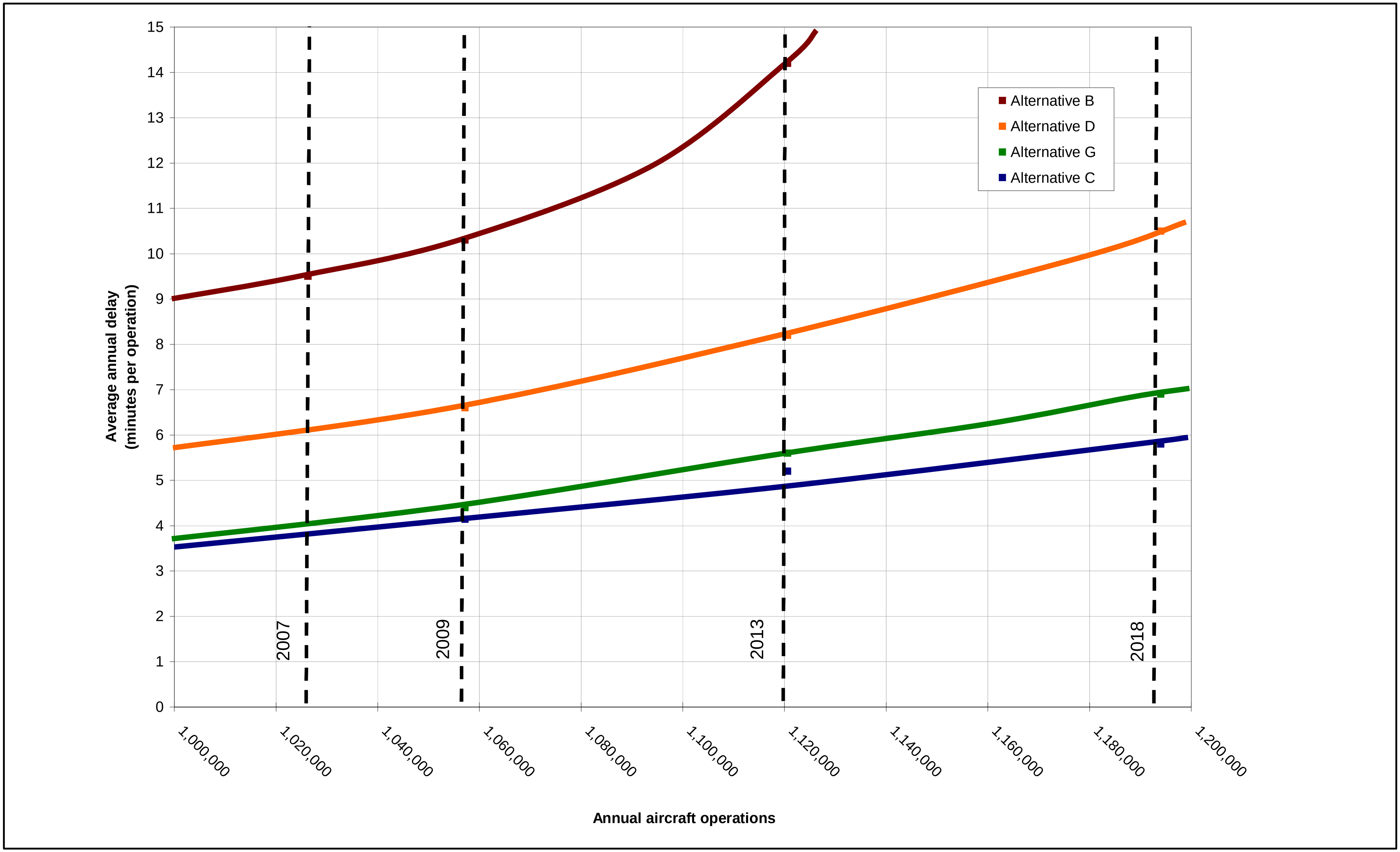
As mentioned in prior sections of the EIS, Alternatives B, C, D, and G would be implemented in phases, beginning with construction of the far north Runway 9L/27R. This would be followed by a second phase of construction that would include construction of new Runway 10C/28C and extension of Runway 10L/28R. Alternative B would be complete at this point. A third phase—or "Build Out"—would occur with Alternatives C, D, and G. For Alternative C, Build Out would include construction of Runways 9C/27C and 10R/28L and the extension of Runway 9R/27L. For Alternative D, only new Runway 9C/27C and the extension of Runway

[2] Discussion Outline – OMP Advisory Session, Runway 12/30, "Proof of Concept" Evaluation, Ricondo and Associates, Inc. [CCT], September 11, 2003.

9R/27L would be constructed. For Alternative G, new Runways 9C/27C and 12/30 would be constructed together with the extension of Runway 9R/27L.

Exhibits D-8 through D-11 show how average annual delay levels would evolve as the various construction phases are completed for Alternatives B, C, D, and G. These delay graphs assume that construction of the alternatives would proceed as proposed by the City of Chicago, with Construction Phase 1 being completed in 2007, Construction Phase 2 (Build Out of Alternative B) being completed in 2009, and Build Out of Alternatives C, D, and G being completed in 2013.

Using **Exhibit D-9** showing Alternative C as an example, average annual delays would be approximately 23 minutes per operation in 2007 as replacement Runway 9L/27R opens; once open the delays would be reduced to approximately 15 minutes per operation. In 2009, the average annual delays would grow to approximately 20 minutes per operation as Runway 10C/28C opens; once open the delays would fall to approximately 10 minutes per operation. In 2013, the average annual delays would grow to approximately 14 minutes as Runways 9C/27C and 10R/28L would open; once open the delays would fall to just over 5 minutes per operation.



Source: Leigh Fisher Associates [TPC], September 2004.

Chicago O'Hare International Airport

O'Hare Modernization
Environmental Impact Statement

Relationship Between Demand and Delay
Proposed Build Alternatives

▶ Exhibit D-7

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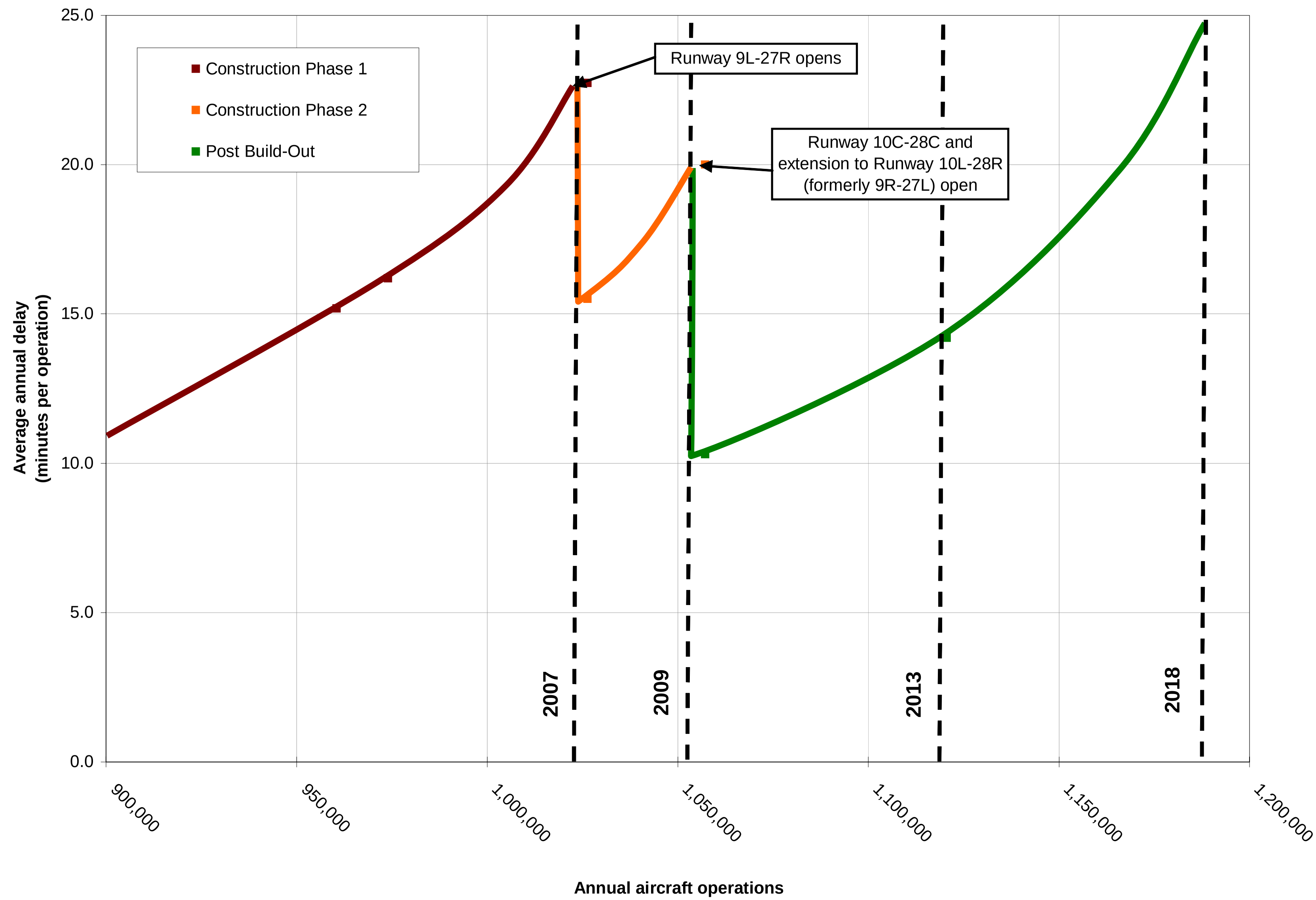

Source: Leigh Fisher Associates [TPC], September 2004.

Chicago O'Hare International Airport

O'Hare Modernization
Environmental Impact Statement

Average Annual Delay Estimates Alternative B Showing Phased Implementation

▶ Exhibit D-8

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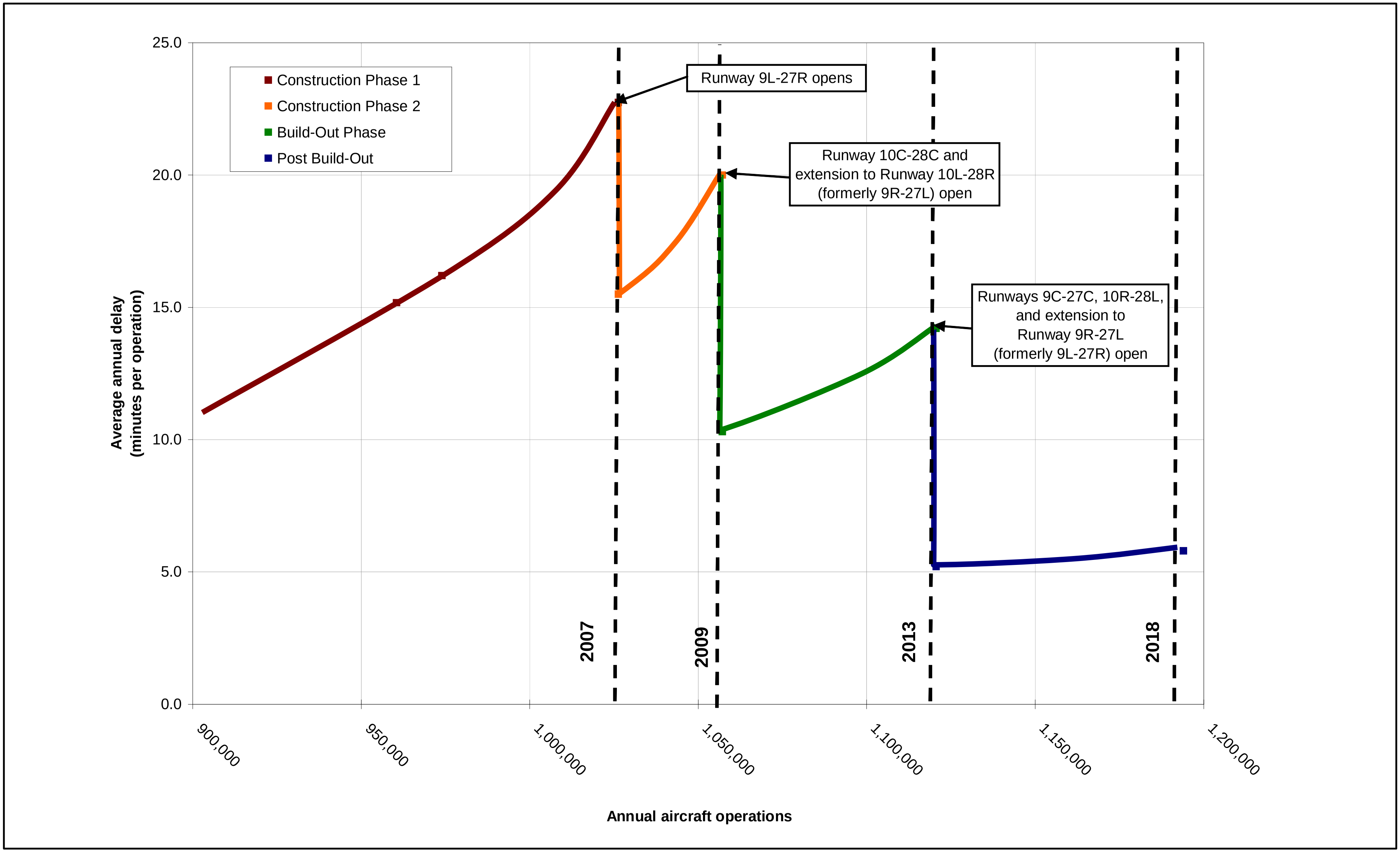

Source: Leigh Fisher Associates [TPC], September 2004.

Average Annual Delay Estimates
Alternative C Showing Phased Implementation

▶ Exhibit D-9

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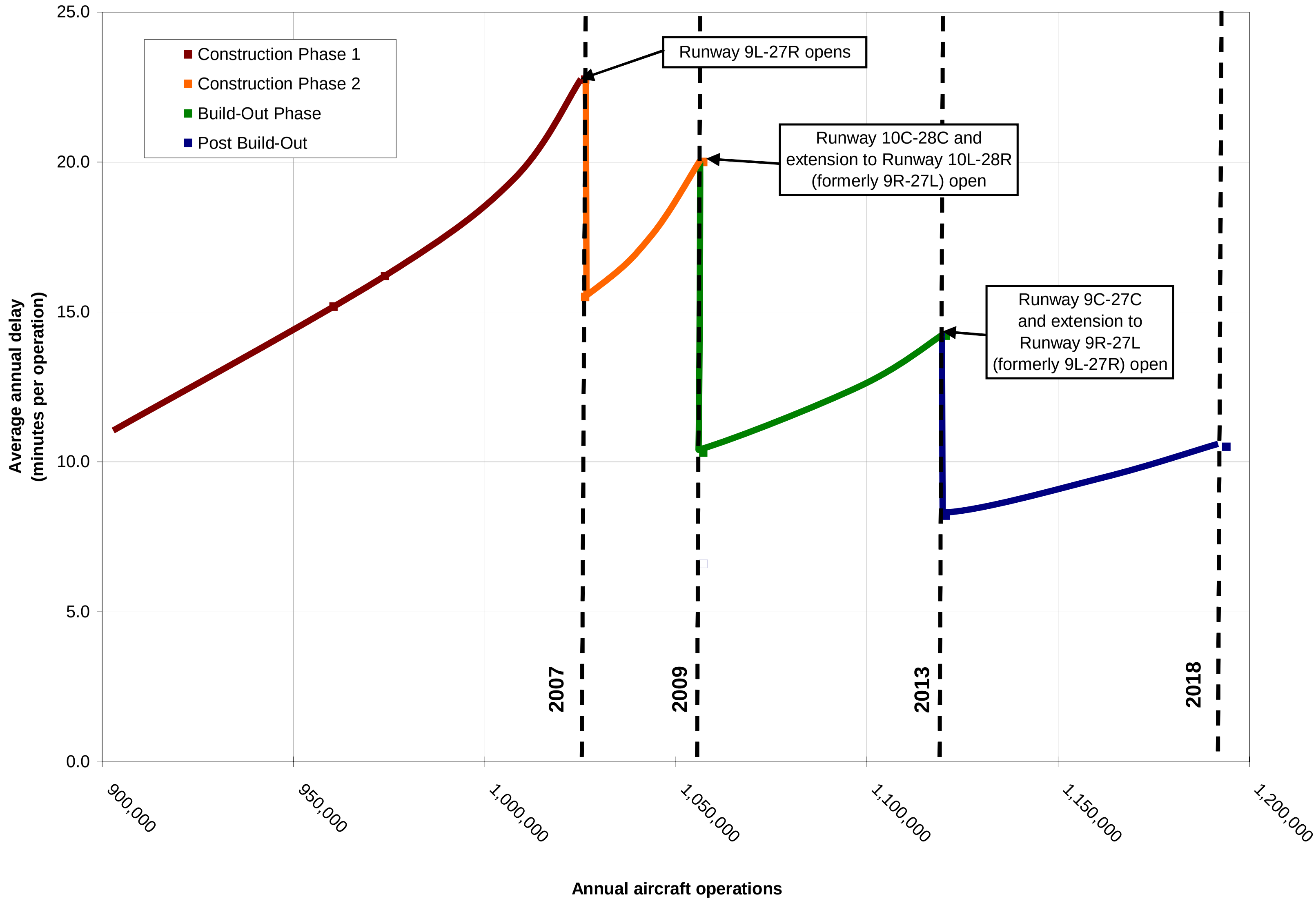

Source: Leigh Fisher Associates [TPC], September 2004.

Chicago O'Hare International Airport

O'Hare Modernization
Environmental Impact Statement

Average Annual Delay Estimates
Alternative D Showing Phased Implementation

▶ **Exhibit D-10**

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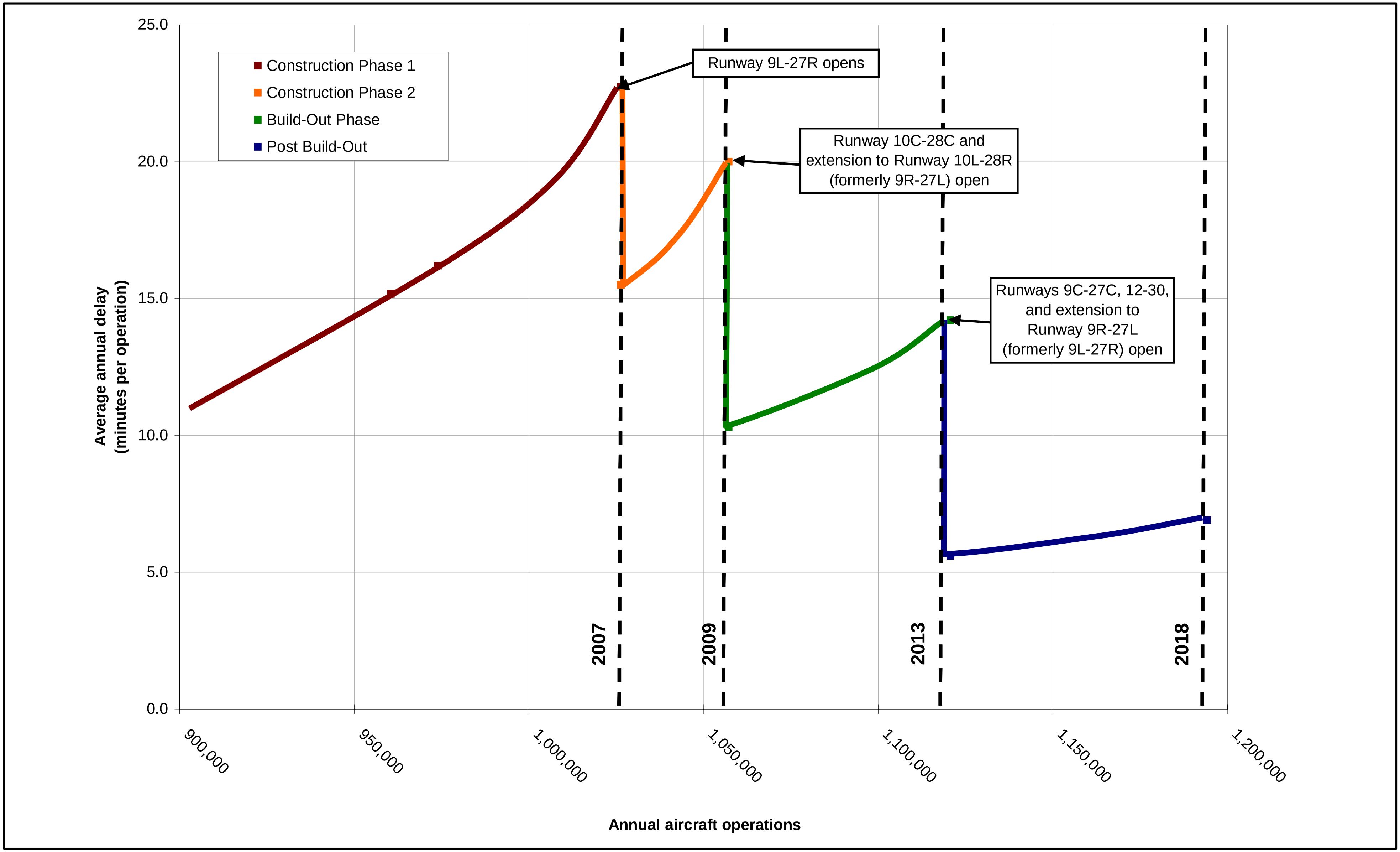

Source: Leigh Fisher Associates [TPC], September 2004.

Chicago O'Hare International Airport

O'Hare Modernization
Environmental Impact Statement

Average Annual Delay Estimates
Alternative G Showing Phased Implementation

Exhibit D-11

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ATTACHMENT D-1

SAMPLE EXCERPTS FROM TAAM SIMULATION DATA PACKAGE

2018 WITH PROJECT

APRIL 2004

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O'HARE MODERNIZATION PROGRAM
TAAM SIMULATION DATA FOR NOISE AND AIR QUALITY ANALYSIS
(DRAFT)

Prepared for:
City of Chicago, Department of Aviation

Prepared by:
Ricondo & Associates, Inc.

April 2004

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5. SIDs and STARs Rules (TAAM usage file)
6. Arrival/Departure Sequencing (TAAM usage file)
7. SIDs
8. STARs
9. TAAM Summary Statistics for Air Quality Analysis

VI Experiment 54 – IFR Parallel 9s
1. Simulation Assumptions
2. Taxiway Routes
3. Airspace Routes
4. Runway Assignment Rules (TAAM usage file)
5. SIDs and STARs Rules (TAAM usage file)
6. Arrival/Departure Sequencing (TAAM usage file)
7. SIDs
8. STARs
9. TAAM Summary Statistics for Air Quality Analysis

VII Experiment 55 – IFR Parallel 27s
1. Simulation Assumptions
2. Taxiway Routes
3. Airspace Routes
4. Runway Assignment Rules (TAAM usage file)
5. SIDs and STARs Rules (TAAM usage file)
6. Arrival/Departure Sequencing (TAAM usage file)
7. SIDs
8. STARs
9. TAAM Summary Statistics for Air Quality Analysis

VIII Annualized TAAM Summary Statistics for Air Quality Analysis

LIST OF CONTENTS AVAILABLE ON THE INCLUDED DVD

1. List of NAVAIDS/Waypoints
2. Flight Schedule
3. TAAM Summary File for each experiment
4. TAAM History File for each experiment
5. TAAM Report File for each experiment
6. TAAM Global Flight Data Recorder File for each experiment
7. TAAM Summary Statistics for Air Quality Analysis for each experiment

I. General

1.1 Weather Conditions and Runway Use

In order to calculate estimates of average annual delays from TAAM simulation results, Ricondo & Associates estimated the annual percentage of specific weather conditions and the associated use of various runway-operating configurations. In the 2002 "No Action" experiments, these factors were computed using 2002 calendar year runway use data obtained from the City of Chicago's Airport Noise Monitoring System (ANMS), and weather data reported by the Federal Aviation Administration (FAA) in their Aviation System Performance Metrics (ASPM) database. A more detailed explanation of the 2002 annualized weightings is contained in the 2002 No Action Simulation Data Package.

To establish annualized weightings for the 2013 and 2018 demand years the use of a larger historical data set is desired to identify weather conditions representative of long-term trends. Accordingly, wind and weather data for Chicago O'Hare International Airport (the Airport) representing ten years of hourly observations collected by the National Climatic Data Center at the Airport between January 1991 and December 2000 was used. This data was reviewed to determine the nature, frequency, and duration of weather conditions that influence aircraft operations.

Table I-1 compares the percent of time conditions associated with visual flight rules (VFR) and instrument flight rules (IFR) occurred in 2002 and over the 10-year period from 1991 to 2000.

Table I-1
Percent Occurrence of VFR and IFR Conditions From a 10-Year Sample of Weather Data

Weather condition	Description	Percent occurrence: 2002 data set	Percent occurrence: 10-year data set
VFR	Cloud ceiling at least 1,000 feet above ground level *AND* visibility at least 3 statute miles	94.0%	90.7%
IFR	Cloud ceiling less than 1,000 feet above ground level *OR* visibility less than 3 statute miles	6.0%	9.3%
	TOTAL	100.0%	100.0%

Source: National Climatic Data Center (January 1, 1991 through December 31, 2000), City of Chicago ANMS 2002, FAA ASPM 2002
Prepared By: Ricondo & Associates

Pertinent weather observations from the 10-year weather data set—including wind velocity, wind direction, cloud ceiling height, and visibility–were used to identify the annual percentage of occurrence associated with the "with project" modeled runway operating configurations for the 2013 and 2018 analysis years. It was assumed that runways in a particular orientation would be available for use provided (1) the tailwind component associated with the runway's orientation is no greater than 5 knots and (2) the crosswind component associated with the runway's orientation is no greater than 20 knots in VFR conditions and 15 knots under IFR conditions. No tailwind component was allowed for runways where Land and Hold Short (LAHSO) procedures are used. In the "with project" case, observations associated with calm conditions were assigned to the Runway 27 operating configuration, which was designated by the air traffic workgroup as the preferred operating configuration in the 2013 and 2018 "with project" airfield configuration.

In addition to wind direction and velocity, other meteorological conditions, such as cloud ceiling height, visibility, and precipitation affect airfield performance. Low cloud ceiling heights and/or visibility conditions may preclude the use of some runway-operating configurations and the use of visual separation rules, which could result in a loss of airfield capacity, increased travel times, and possibly the use of extra space between aircraft in the airspace surrounding the Airport. Additionally, wet runways prevent the use of LAHSO procedures, which can adversely affect the viability or the operational efficiency of some runway-operating configurations.

In order to capture the effects associated with the aforementioned weather conditions, (1) LAHSO runway-operating configurations were only considered viable in VFR conditions during periods where no precipitation was reported, and (2) in the cases where the capability to land on four runways exist (i.e. 2013/2018 "with project" case), two VFR operating conditions are established based on cloud ceiling height and visibility:

- Visual Flight Rules 1 (VFR-1), which account for weather conditions where cloud ceiling height is equal to or above 5,500 feet above ground level (AGL) and visibility is 10 statute miles or greater.
- Visual Flight Rules 2 (VFR-2), which account for weather conditions where cloud ceiling height is less than 5,500 feet AGL, but, equal to or greater than 1,000 feet, and visibility is less than 10 statute miles, but, equal to or greater than 3 statute miles.

In the VFR-1 condition it is assumed that visual approach procedures would be applied to accommodate the use of the fourth arrival runway. In the VFR-2 weather condition the assumption is that visual separation could not be applied and, due to the spacing between Runways 10C/28C and 10R/28L, only three arrival runways would be available for use.

Six (6) runway-operating configurations are modeled in TAAM for the "with project" case for the 2013 and 2018 analysis years. To estimate the annual use of the modeled configuration all plausible runway-operating configurations and their sub-components were assessed under VFR and IFR conditions. For the purposes of annualization of TAAM delay results, all values associated with non-modeled operating configurations were assigned to the most similar modeled runway-operating configuration. VFR observations were only assigned to modeled VFR operating configurations. Likewise, IFR observations were only assigned to modeled IFR operating configurations.

Table 1-2 depicts the allocations made in the 2013/2018 "with project" cases.

Table I-2

Allocations of Non-Modeled Runway-Operating Configurations to TAAM Modeled Runway Operating-Configurations – With Project 2013 and 2018

Assessed Operating Configurations	Estimated annual percentage of occurrence			Assumed TAAM Operating Configuration	
	VFR-1	VFR-2	IFR	VFR	IFR
Parallel 9s	12.5	10.6	4.2	Parallel 9s	Parallel 9s
Parallel 27s w/22L	41.1	25.8	4.6	Parallel 27s w/22L	Parallel 27s w/22L
Parallel 27s	0.3	0.3	<0.1	Parallel 27s w/22L	Parallel 27s w/22L
Parallel 9s w/4L	0.0	0.0	0.0	Parallel 9s	Parallel 9s
Parallel 22s	<0.1	<0.1	<0.1	Parallel 27s w/22L	Parallel 27s w/22L
Parallel 4s	<0.1	<0.1	0.3	Parallel 9s	Parallel 9s
Unaccounted	<0.1	<0.1	<0.1	Parallel 9s	Parallel 9s

Sources: National Climatic Data Center (January 1, 1991 through December 31, 2000); Ricondo & Associates, Inc.
Prepared By: Ricondo & Associates, Inc.

Tables I-3 shows the annualized weightings for modeled runway-operating configurations resulting from the weather analysis conducted using the assumptions previously described.

Table I-3

Annualized Weighting for O'Hare International Airport - With Project Operating Configurations 2013 and 2018

TAAM experiment numbers	Runway configuration	Weather condition	Estimated annual percentage of occurrence
44, 33	Parallel 9s (Quad)	VFR-1	12.6%
45, 51	Parallel 9s (Triple)	VFR-2	10.6%
46, 52	Parallel 27s w/22L[1/] (Quad)	VFR-1	41.4%
47, 53	Parallel 27s w/22L[1/] (Triple)	VFR-2	26.1%
48, 54	Parallel 9s	IFR	4.5%
49, 55	Parallel 27s[1/]	IFR	4.8%

[1/] Preferred Operating Configurations for Indicated Weather Condition

Note: The 2013 and 2018 runway operating configurations are based on the addition of 3 runways, Runways 9C/27C, 10C/28C, and 10R/28L.

Sources: National Climatic Data Center (January 1, 1991 through December 31, 2000); Ricondo & Associates, Inc.
Prepared By: Ricondo & Associates, Inc.

The following exhibit graphically depicts the 2018 With Project operating configurations.

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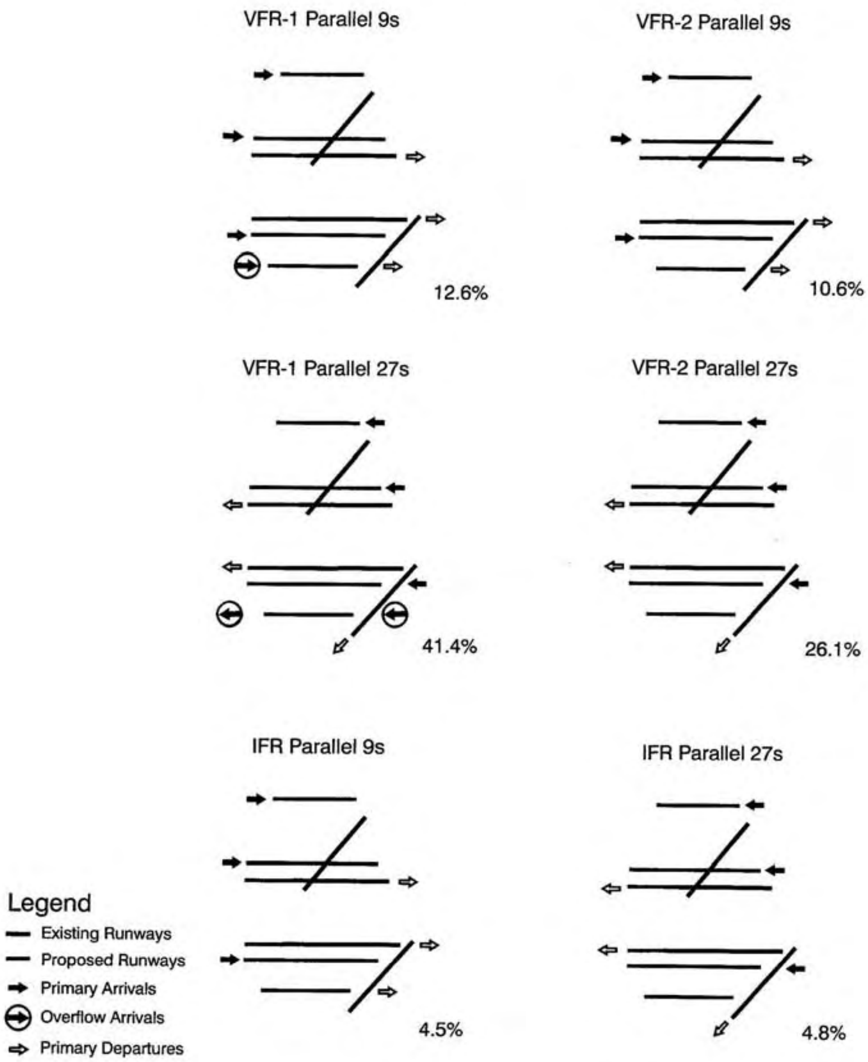

Sources: Ricondo & Associates, Inc., ORD ATCT
Prepared by: Ricondo & Associates, Inc.

North

Operating Configurations
2018 With Project

April 2004

1.2 Runway Crossing Assumptions

A. Time required for various aircraft types to begin acceleration when crossing a runway were modified and can be found in the "xrwy_times.dat" file. Those times are as follows:

- Heavy (aircraft ≥136,000 kg) 24 seconds
- Medium (aircraft ≥7,000 kg and <136,000kg) 14 seconds
- Light (aircraft <7,000kg) 4 seconds

B. Runway Safety Areas (RSA) extends 76 meters from the center line of the runway. Aircraft waiting to cross a runway centerline stop outside the RSA and exit on the opposite side of the RSA when the crossing is complete.

C. Taxi speeds on taxiways crossing runway centerlines is 15 kts.

D. Aircraft waiting to cross an active arrival runway will begin crossing a runway after the landing aircraft has passed the intersection where the crossing will occur. The crossing aircraft will be clear of the RSA before the next arrival aircraft is 0.5 NM from the runway threshold.

E. In TAAM aircraft crossing behind intersection departures consider the aircraft ahead of them as occupying the runway. They wait for the preceding aircraft to cross the runway and the first intersection, before crossing the runway themselves. Taxi speeds for these aircraft were increased to 35 knots while in the RSA to realistically model representative runway crossing times at the Airport.

These assumptions were reviewed and confirmed by the O'Hare Air Traffic workgroup.

1.2.1 Runway Crossing Results

This section contains the results of the runway crossings that are applicable to the 2018 With Project Assumptions. **Table I-6** lists the total runway crossings summarized by experiment and the total weighted annual average of runway crossings.

Table I-6

2018 With Project Peak Month Average Day
Total Runway Crossings Summarized by Experiment

Experiment	Runway Configuration	Active Crossings[1/]	Beyond LAHSO Point[2/]	Behind Intersection Departure[3/]	Totals
33	VFR-1 Parallel 9s	573	605	1,875	3,053
51	VFR-2 Parallel 9s	581	499	1,911	2,991
52	VFR-1 Parallel 27s	249	538	1,521	2,308
53	VFR-2 Parallel 27s	205	505	1,558	2,268
54	IFR Parallel 9s	1,453	-	2,069	3,522
55	IFR Parallel 27s	760	-	1,555	2,315
Annualized		392	484	1,644	2,520

1/ Taxiing aircraft crossing a runway that is currently in use for arrivals and/or departures where Air Traffic Control action is required.
2/ Runway crossings that occur behind a LAHSO point while the LAHSO procedures are in use.
3/ Runway crossings that occur behind an intersection departure point.

Source: TAAM Plus Simulation Runs; Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

1.3 Aircraft Separation/Spacing

Table I-7 lists the in-trail separation values used in the VMC calibration runs and all subsequent VMC simulation experiments. These values are consistent with Standard FAA separation minima as found in the FAA Order 7110.65M, and were based on input provided by the FAA air traffic team. The shaded area of the table indicates those aircraft pairings that are eligible for Reduced Separation on Final criteria of 2.5 NM. The TAAM model allows special areas called sectors to be built which correctly define the area on the final approach where reduced separations of 2.5 NM are allowed.

Table I-7
In-trail Separation Values Used for VMC

	IN-TRAIL SEPARATIONS (NM)				
	LEAD AIRCRAFT				
TRAIL AIRCRAFT	HEAVY	B757	LARGE	SMALL +	SMALL
HEAVY	4.0	4.0	3.0	3.0	3.0
B757	5.0	4.0	3.0	3.0	3.0
LARGE	5.0	4.0	3.0	3.0	3.0
SMALL+	6.0	5.0	4.0	3.0	3.0
SMALL	6.0	5.0	4.0	3.0	3.0

Notes: HEAVY (> 255,000 pounds); B757; LARGE (> 41,000 pounds and <225,000 pounds); SMALL+ (>12,500 pounds and <41,000 pounds); SMALL (< 12,500 pounds). The shaded areas indicate those aircraft pairings that are eligible for Reduced Separation on Final criteria of 2.5 NM on final approach.

Sources: Automated Radar Terminal Systems Data and ORD ATCT; FAA Order 7110.65M; Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

Analysis was conducted using 25 days of Airport Noise Monitoring System (ANMS) data from July 2002. The analysis indicated that peak hourly arrival throughput rates met the same high levels as the simulation, however the sustained levels of the simulation were higher than those indicated in the ANMS data. Correspondingly, four (4) sensitivity tests were conducted setting in-trail spacing values in the final approach sector at 2.6, 2.7, 2.8, and 2.9 nautical miles respectively. An additional sensitivity test was conducted in which airspeeds on the final approach were set at 170 knots rather than being allowed to vary between 170 to 190 knots.

Comparing the arrival throughput rates of the sensitivity tests with those of the ANMS data, it was determined that in VMC an in-trail spacing of 2.8 nautical miles produced arrival rates consistent with those observed. Accordingly and consistent with a recommendation from the FAA's Third Party Consultant (TPC), in a memorandum dated January 7, 2004, in-trail spacing in final approach sectors associated with dedicated arrival runways are set to 2.8 NM in the 2002 baseline, future "no-action", and future "with project" simulation experiments.

Table I-8 contains the minimum spacing values used during IMC in the simulation experiments. These values were identified through an analysis of ORD ARTS data conducted in June 2002. They represent the average observer values. The IMC spacing was reviewed by the FAA air traffic team and adjusted based on experience. As above, the adjusted IMC separations determined through the aforementioned procedure were verified during the simulation verification process, the results of which closely matched actual throughput by runway.

Table I-8
In-trail Spacing Values Used for IMC

	IN-TRAIL SEPARATIONS (NM)				
	LEAD AIRCRAFT				
TRAIL AIRCRAFT	HEAVY	B757	LARGE	SMALL +	SMALL
HEAVY	4.3	4.1	3.3	3.5	3.5
B757	5.1	4.1	3.2	3.4	3.4
LARGE	5.2	4.2	3.2	3.3	3.3
SMALL+	6.2	5.2	4.1	3.3	3.3
SMALL	6.7	5.2	4.1	3.4	3.4

Note: HEAVY (> 255,000 pounds); B757; LARGE (> 41,000 pounds and <225,000 pounds); SMALL+ (>12,500 pounds and <41,000 pounds); SMALL (< 12,500 pounds).

Sources: Automated Radar Terminal Systems Data and ORD ATCT; FAA Order 7110.65M; Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

In-trail separation for departures on common SIDS is 7.0 NM in-trail at the airspace boundary.

1.4 TAAM Reporting

Delay calculations are prepared using data contained in TAAM report (.rep) and message (.msg) output files. The Total Airport Delay is an average of all flights and is calculated using data contained in a report file. Each flight's delay is the summation of the following five delay categories and is described below.

1. ORD Arrival Sequencing and Vectoring Air Delay is an average of all arrivals and is calculated using data contained in the report file (apt_delay{rwy/seq delays}).
2. ORD Departure Ground Delay at ORD is an average of all departures. It is calculated using data contained in the report file and is the sum of taxi delays (taxi_usage{delay_time}) and runway delays (apt_delay{rwy/seq delays}).
3. ORD Arrival Ground Delay at ORD is an average of all arrivals, calculated using data contained in the report file, and is the sum of taxi delays (taxi_usage{delay_time}) and standoff delay (apt_standoff_delay{join_queue_time, leave_queue_time). Standoff delay is the difference between when an aircraft enters and leaves the standoff queue.
4. ORD Arrival Pre-Departure Ground Delay at Origin is an average of all arrivals and is calculated using data contained in the message (.msg) file. Flights experiencing this delay are denoted by the phrase, "Intrail delay at start of (delay) sec due to (flight number)".
5. ORD Departure Gate Delay at ORD is an average of all departures, calculated using data contained in the report file, and is the sum of positioning delay (apt_delay{pos_delays}) and gate delay (apt_delay{gate}).

1.5 Peak Operations, Delay, and Travel Times

The following definitions describe each of the components shown in Tables I-9 through I-16:

Operations and Terminations: Scheduled operations are the number flights in the timetable to be simulated. Processed operations are the number of flights actually simulated. The difference is the number of flights terminated during the simulation.

Peak Operations: To describe peak operations one must first define the operational peak. The operational peak is the simulation period during which the highest number of operations occurs based on a rolling count.

Rolling hour count: To do a rolling hour count of operations, each aircraft's time is first rounded down to the nearest ten minutes. All aircraft having the same rounded time are aggregated into a ten-minute "bucket." The number of aircraft contained in the first six time buckets (#1 through #6) is the first full hour count. The first rolling hour count is the number of aircraft contained in buckets #2 through #7. The remaining rolling hour counts are determined by summing groups of six ten-minute buckets until the last bucket is counted in a rolling hour. The time coinciding with the last bucket in the largest rolling hour count is identified as the peak hour.

Rolling 15-minute count: To do a rolling 15-minute count of operations, each aircraft's time is first rounded down to the nearest five minutes. All aircraft having the same rounded time are aggregated into a five-minute "bucket." The number of aircraft contained in the first three time buckets (#1 through #3) is the first full 15-minute count. The first rolling 15-minute count is the number of aircraft contained in buckets #2 through #4. The remaining rolling 15-minute counts are determined by summing groups of three five-minute buckets until the last bucket is counted in a rolling 15-minutes. The time coinciding with the last bucket in the largest rolling 15-minute count is identified as the peak 15-minute period.

Peak departure operations (rolling hour): This is the number of departures that occur during the peak departure period as identified in a rolling hour count of departures.

Peak arrival operations (rolling hour): This is the number of arrivals that occur during the peak arrival period as identified in a rolling hour count of arrivals.

Peak total operations (rolling hour): This is the number of operations that occur during the operational peak period as identified in a rolling hour count of all operations.

Peak departure operations (rolling 15-minute): This is the number of departures that occur during the departure peak period as identified in a rolling 15-minute count of departures.

Peak arrival operations (rolling 15-minute): This is the number of arrivals that occur during the arrival peak period as identified in a rolling 15-minute count of arrivals.

Peak total operations (rolling 15-minute): This is the number of operations that occur during the operational peak period as identified in a rolling 15-minute count of all operations.

Delay: Delay is the additional operating time attributable to any impediment to the free flow of aircraft through the system. Umimpeded travel time is the time it would take an aircraft to travel from Point A to Point B if it were the only aircraft in the system. Increases in the travel time from Point A to Point B as a result of interactions with other aircraft in the system are considered delays. Thus, total delay for any given aircraft is the difference between the actual time it takes the aircraft to get from Point A to Point B while interacting with other aircraft and the umimpeded time it would theoretically take the aircraft to get from Point A to Point B without other aircraft in the system.

For statistical purposes, this total delay was averaged across all aircraft moving through the system in the simulation day. Total delay is a combination of various key delay component, defined below, including departure gate delay, departure ground delay, arrival pre-departure ground delay, arrival ground delay, and arrival air delay.

Departure gate delay: For departing aircraft, this delay is the extra time incurred after the aircraft is ready to push back from the gate due to other ground traffic preventing the movement.

Arrival pre-departure ground delay: For arriving aircraft, this delay is the extra time incurred on the ground at the origin airport, after the scheduled departure time, due to a flow control program at ORD.

Arrival ground delay: For arriving aircraft, this is the total delay incurred between the time the flight touches down on the runway at ORD and the time it reaches the arrival gate. Arrival ground delay includes taxi-in delay, standoff delay, and runway crossing delay.

Departure ground delay: For departing aircraft, this is the total delay incurred between the time the flight completes its push back from the departure gate until it lifts off. Departure ground delay includes the sum of taxi-out delay, runway crossing delay, and runway queue delay.

Arrival sequencing and vectoring air delay: For arriving aircraft, this is the total airborne delay incurred due to holding, vectoring, and speed control within the sequencing boundary in the vicinity of ORD. This delay is the result of sequencing actions taken by aircraft to ensure proper spacing on final approach to the arrival runways.

Time in Operational Phase: The average time in operational phase describes the operating time of aircraft in each phase of operation. The various components of total operating time include arrival airborne time, arrival ground time, departure airborne time, and departure ground time.

Arrival airborne time: For arriving aircraft, this is the time from when the aircraft departs the origin airport to when the aircraft touches down at ORD. It includes any sequencing or vectoring delay encountered at ORD as well as the unimpeded flying time between the origin airport and ORD.

Arrival ground time: For arriving aircraft, this is any time spent on the ground. It includes any delay imposed at the origin airport, any ground delay (taxiing or queuing) encountered at ORD, and unimpeded taxi time at ORD.

Departure airborne time: For departing aircraft, this is the time from when the aircraft lifts off of the runway at ORD to when the aircraft arrives at the destination airport. It is essentially the unimpeded flying time between ORD and the destination airport.

Departure ground time: For departing aircraft, this is the time spent on the ground at ORD. It includes any gate delay imposed at ORD, any ground delay (taxiing or queuing) encountered at ORD, and the unimpeded taxi time at ORD.

Arrival runway violations: An arrival runway violation occurs when multiple aircraft occupy the same runway at the same time.

Average unimpeded travel time: The unimpeded travel time describes the average operating time in each phase of operation. The various components of the operating phase include average unimpeded airborne time and average ground time. It does not include any delay.

Average unimpeded airborne time: Average unimpeded airborne time is the average time from when the aircraft departs to when the aircraft touches down. It does not include any delay.

Average unimpeded ground time: Average unimpeded ground time is the average unimpeded time spent on the ground. It does not include any delay.

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Tables I-9 through I-14 contain statistics for all 2018 With Project TAAM Simulation multi-iterations

Table I-9
2018 VFR-1 Parallel 9s (Quads)

Iteration	Project Name	Seed Randomization Number	Study Date	Schedule Randomization (On/Off)	TAAM Version	Step	Operations: Scheduled Arrival Operations	Operations: Processed Arrival Operations	Operations: Scheduled Departure Operations	Operations: Processed Departure Operations	Operations: Scheduled Total Operations	Operations: Processed Total Operations	Terminations: Flights Terminated During Departure	Terminations: Flights Terminated During Arrival	Terminations: Total Terminated Flights	Terminations: Percentage of Total Terminated Flights
1	KORD_EIS_EXP33	549467	04/02/04	On	2.0.1	1	1687	1686	1687	1686	3374	3372	1	1	2	0.06%
2	KORD_EIS_EXP33	563476	04/02/04	On	2.0.1	1	1687	1687	1687	1687	3374	3374	0	0	0	0.00%
3	KORD_EIS_EXP33	577485	04/02/04	On	2.0.1	1	1687	1685	1687	1686	3374	3371	1	2	3	0.09%
4	KORD_EIS_EXP33	703566	04/02/04	On	2.0.1	1	1687	1686	1687	1687	3374	3373	0	1	1	0.03%
5	KORD_EIS_EXP33	717575	04/02/04	On	2.0.1	1	1687	1684	1687	1687	3374	3371	0	3	3	0.09%
6	KORD_EIS_EXP33	619512	04/02/04	On	2.0.1	1	1687	1684	1687	1686	3374	3370	1	3	4	0.12%
7	KORD_EIS_EXP33	633521	04/02/04	On	2.0.1	1	1687	1687	1687	1687	3374	3374	0	0	0	0.00%
8	KORD_EIS_EXP33	647530	04/02/04	On	2.0.1	1	1687	1682	1687	1687	3374	3369	0	5	5	0.15%
9	KORD_EIS_EXP33	661539	04/02/04	On	2.0.1	1	1687	1682	1687	1686	3374	3368	1	5	6	0.18%
10	KORD_EIS_EXP33	675548	04/02/04	On	2.0.1	1	1687	1685	1687	1687	3374	3372	0	2	2	0.06%
11	KORD_EIS_EXP33	689557	04/02/04	On	2.0.1	1	1687	1686	1687	1685	3374	3371	2	1	3	0.09%

Iteration	Peak Operations (Rolling Hour): Peak Departure Operations	Peak Departure Time	Peak Arrival Operations	Peak Arrival Time	Peak Total Operations	Peak Total Time	Peak Operations (Rolling 15-Minute): Peak Departure Operations	Peak Departure Time	Peak Arrival Operations	Peak Arrival Time	Peak Total Operations	Peak Total Time	Average Delay per Phase of Operation (minutes): ORD Departure gate delay at ORD	ORD Arrival predeparture ground delay at origin	ORD Arrival ground delay at ORD	ORD Departure ground delay at ORD	ORD Arrival sequencing and vectoring air delay	Average Delay per All Airport Operations (minutes): Total Airport Delay	Average Time in Operational Phase (minutes): Arrivals Airborne	Arrivals Ground	Arrivals Total	Departures Airborne	Departures Ground	Departures Total	Arrival Runway Violations: Overlaps	Arrival Runway Violations: Percentage
1	133	14:20	132	19:30	256	14:20	41	12:40	42	17:20	76	17:20	0.6	0.1	0.4	3.7	3.5	4.1	142.3	14.8	157.1	132.8	15.2	147.9	9	0.5%
2	131	19:10	138	19:40	263	19:30	40	14:00	43	14:25	79	17:20	0.6	0.0	0.4	3.8	3.6	4.2	142.5	14.8	157.2	132.9	15.4	148.3	15	0.9%
3	132	14:20	134	19:40	259	19:20	39	12:40	42	17:20	77	9:30	0.6	0.0	0.4	3.5	3.6	4.0	142.5	14.7	157.2	132.9	15.0	147.9	8	0.5%
4	135	14:10	138	19:40	260	20:20	45	13:45	43	14:25	76	20:25	0.7	0.0	0.4	3.7	3.6	4.2	142.5	14.8	157.3	132.8	15.3	148.1	10	0.6%
5	132	20:20	134	19:40	261	20:20	42	8:30	42	9:25	75	9:25	0.6	0.0	0.4	4.1	3.4	4.2	142.2	14.8	157.0	132.9	15.6	148.5	10	0.6%
6	136	14:20	133	19:40	260	14:20	46	13:45	42	9:25	75	20:25	0.6	0.0	0.4	3.7	3.7	4.2	142.5	14.8	157.3	132.9	15.2	148.1	8	0.5%
7	132	14:20	136	19:40	259	19:30	44	13:40	41	14:25	75	20:20	0.6	0.0	0.4	3.9	3.6	4.3	142.5	14.8	157.3	132.9	15.5	148.4	8	0.5%
8	134	19:20	133	19:30	263	19:30	41	13:40	40	17:25	74	17:25	0.6	0.1	0.4	3.9	3.5	4.2	142.4	14.8	157.2	132.8	15.5	148.3	13	0.8%
9	133	14:20	135	19:40	259	20:20	45	13:45	43	11:25	76	20:25	0.6	0.0	0.4	3.5	3.6	4.0	142.3	14.8	157.0	132.7	15.0	147.7	11	0.7%
10	128	19:20	132	19:40	259	19:30	41	12:40	45	11:20	77	20:20	0.6	0.0	0.4	3.8	3.7	4.2	142.5	14.7	157.3	132.8	15.3	148.1	7	0.4%
11	131	20:10	134	19:40	259	20:20	41	8:25	41	20:25	76	17:20	0.5	0.0	0.4	4.0	3.6	4.3	142.6	14.8	157.3	132.7	15.5	148.2	7	0.4%

Note: This table contains relevant statistics for every iteration of the Experiment 33 multi-run.

Source: OMP EIS TAAM Simulation Output Files
Prepared by: Ricondo & Associates, Inc.

Table I-10
2018 VFR-2 Parallel 9s (Trips)

Iteration	Project Name	Seed Randomization Number	Study Date	Schedule Randomization (On/Off)	TAAM Version	Step	Operations: Scheduled Arrival Operations	Operations: Processed Arrival Operations	Operations: Scheduled Departure Operations	Operations: Processed Departure Operations	Operations: Scheduled Total Operations	Operations: Processed Total Operations	Terminations: Flights Terminated During Departure	Terminations: Flights Terminated During Arrival	Terminations: Total Terminated Flights	Terminations: Percentage of Total Terminated Flights
1	KORD_EIS_EXP51	549467	04/05/04	On	2.0.1	1	1687	1686	1687	1684	3374	3370	3	1	4	0.12%
2	KORD_EIS_EXP51	563476	04/05/04	On	2.0.1	1	1687	1686	1687	1683	3374	3369	4	1	5	0.15%
3	KORD_EIS_EXP51	703566	04/05/04	On	2.0.1	1	1687	1683	1687	1681	3374	3364	6	4	10	0.30%
4	KORD_EIS_EXP51	591494	04/05/04	On	2.0.1	1	1687	1687	1687	1680	3374	3367	7	0	7	0.21%
5	KORD_EIS_EXP51	717575	04/05/04	On	2.0.1	1	1687	1686	1687	1684	3374	3370	3	1	4	0.12%
6	KORD_EIS_EXP51	619512	04/05/04	On	2.0.1	1	1687	1686	1687	1685	3374	3371	2	1	3	0.09%
7	KORD_EIS_EXP51	633521	04/05/04	On	2.0.1	1	1687	1687	1687	1685	3374	3372	2	0	2	0.06%
8	KORD_EIS_EXP51	647530	04/05/04	On	2.0.1	1	1687	1686	1687	1682	3374	3368	5	1	6	0.18%
9	KORD_EIS_EXP51	661539	04/05/04	On	2.0.1	1	1687	1687	1687	1685	3374	3372	2	0	2	0.06%
10	KORD_EIS_EXP51	675548	04/05/04	On	2.0.1	1	1687	1686	1687	1685	3374	3371	2	1	3	0.09%
11	KORD_EIS_EXP51	689557	04/05/04	On	2.0.1	1	1687	1687	1687	1680	3374	3367	7	0	7	0.21%

Iteration	Peak Operations (Rolling Hour): Peak Departure Operations	Peak Departure Time	Peak Arrival Operations	Peak Arrival Time	Peak Total Operations	Peak Total Time	Peak Operations (Rolling 15-Minute): Peak Departure Operations	Peak Departure Time	Peak Arrival Operations	Peak Arrival Time	Peak Total Operations	Peak Total Time	Average Delay per Phase of Operation (minutes): ORD Departure gate delay at ORD	ORD Arrival predeparture ground delay at origin	ORD Arrival ground delay at ORD	ORD Departure ground delay at ORD	ORD Arrival sequencing and vectoring air delay	Average Delay per All Airport Operations (minutes): Total Airport Delay	Average Time in Operational Phase (minutes): Arrivals Airborne	Arrivals Ground	Arrivals Total	Departures Airborne	Departures Ground	Departures Total	Arrival Runway Violations: Overlaps	Arrival Runway Violations: Percentage
1	136	14:20	129	19:10	258	20:10	43	12:40	36	14:20	76	20:20	0.5	0.1	0.5	2.9	5.1	4.5	144.4	14.9	159.3	132.7	14.6	147.2	12	0.7%
2	129	20:10	133	20:20	260	20:20	42	18:30	36	16:25	76	18:30	0.6	0.0	0.5	3.1	5.4	4.7	144.7	14.8	159.5	132.3	14.8	147.1	16	0.9%
3	134	14:20	132	19:30	253	14:20	42	16:15	35	19:40	73	16:15	0.5	0.0	0.4	2.8	5.1	4.4	144.3	14.7	159.1	132.5	14.5	146.9	10	0.6%
4	132	20:00	134	20:30	265	20:10	42	12:35	36	14:25	74	18:40	0.6	0.1	0.5	2.8	5.1	4.5	144.4	14.8	159.2	132.4	14.6	147.0	13	0.8%
5	132	19:10	134	20:20	265	20:20	44	12:40	36	14:30	73	9:30	0.5	0.0	0.4	3.1	5.2	4.6	144.4	14.8	159.2	132.7	14.8	147.6	17	1.0%
6	134	14:20	134	19:50	259	20:20	43	13:40	36	20:35	73	18:35	0.6	0.1	0.4	3.2	4.8	4.5	143.9	14.8	158.7	132.7	14.9	147.6	14	0.8%
7	134	20:10	132	20:00	264	20:10	42	18:35	35	19:20	75	9:30	0.5	0.0	0.4	3.2	5.5	4.9	144.7	14.8	159.5	132.9	14.9	147.8	12	0.7%
8	131	20:10	132	20:40	261	20:10	45	9:30	35	20:35	77	9:30	0.5	0.0	0.4	2.9	5.5	4.7	144.7	14.8	159.4	132.7	14.6	147.2	17	1.0%
9	132	14:20	133	20:30	261	20:20	42	12:45	35	20:30	72	12:45	0.6	0.0	0.5	3.0	5.5	4.8	144.7	14.9	159.5	132.8	14.7	147.5	4	0.2%
10	134	20:20	132	19:50	263	20:20	41	20:20	35	20:40	75	18:35	0.6	0.0	0.5	3.2	5.3	4.8	144.5	14.8	159.3	132.7	14.9	147.6	9	0.5%
11	131	14:20	131	20:30	257	20:10	43	9:30	36	20:30	74	9:30	0.5	0.0	0.4	2.8	5.4	4.6	144.7	14.8	159.5	132.4	14.5	146.8	10	0.6%

Note: This table contains relevant statistics for every iteration of the Experiment 51 multi-run.

Source: OMP EIS TAAM Simulation Output Files
Prepared by: Ricondo & Associates, Inc.

OMP Simulation Data Package
2018 With Project

April 2004
DRAFT

Preliminary Draft
For Discussion Purposes Only

O'Hare International Airport

Table I-11
2018 VFR-1 Parallel 27s (Quads)

Iteration	Project Name	Seed Randomization Number	Study Date	Schedule Randomization (On/Off)	TAAM Version	Step	Operations: Scheduled Arrival Operations	Operations: Processed Arrival Operations	Operations: Scheduled Departure Operations	Operations: Processed Departure Operations	Operations: Scheduled Total Operations	Operations: Processed Total Operations	Terminations: Flights Terminated During Departure	Terminations: Flights Terminated During Arrival	Terminations: Total Terminated Flights	Terminations: Percentage of Total Terminated Flights
1	KORD_EIS_EXP52	535458	04/05/04	On	2.0.1	1	1687	1682	1687	1685	3374	3367	2	5	7	0.21%
2	KORD_EIS_EXP52	549467	04/05/04	On	2.0.1	1	1687	1678	1687	1687	3374	3365	0	9	9	0.27%
3	KORD_EIS_EXP52	563476	04/05/04	On	2.0.1	1	1687	1679	1687	1681	3374	3360	6	8	14	0.41%
4	KORD_EIS_EXP52	577485	04/05/04	On	2.0.1	1	1687	1679	1687	1687	3374	3366	0	8	8	0.24%
5	KORD_EIS_EXP52	591494	04/05/04	On	2.0.1	1	1687	1679	1687	1684	3374	3363	3	8	11	0.33%
6	KORD_EIS_EXP52	605503	04/05/04	On	2.0.1	1	1687	1682	1687	1687	3374	3369	0	5	5	0.15%
7	KORD_EIS_EXP52	619512	04/05/04	On	2.0.1	1	1687	1681	1687	1687	3374	3368	0	6	6	0.18%
8	KORD_EIS_EXP52	633521	04/05/04	On	2.0.1	1	1687	1680	1687	1686	3374	3366	1	7	8	0.24%
9	KORD_EIS_EXP52	647530	04/05/04	On	2.0.1	1	1687	1679	1687	1685	3374	3364	2	8	10	0.30%
10	KORD_EIS_EXP52	661539	04/05/04	On	2.0.1	1	1687	1682	1687	1687	3374	3369	0	5	5	0.15%
11	KORD_EIS_EXP52	675548	04/05/04	On	2.0.1	1	1687	1681	1687	1685	3374	3366	2	6	8	0.24%

Iteration	Peak Operations (Rolling Hour): Peak Departure Operations	Peak Departure Time	Peak Arrival Operations	Peak Arrival Time	Peak Total Operations	Peak Total Time	Peak Operations (Rolling 15-Minute): Peak Departure Operations	Peak Departure Time	Peak Arrival Operations	Peak Arrival Time	Peak Total Operations	Peak Total Time
1	130	20:10	140	19:30	267	19:20	41	8:25	40	19:15	75	19:25
2	135	20:10	143	19:20	267	19:20	45	8:30	42	19:00	77	20:20
3	133	20:10	148	19:20	277	19:20	43	20:20	40	19:05	81	20:20
4	142	20:10	143	19:30	267	19:20	42	8:30	41	11:25	77	20:15
5	132	19:20	141	19:30	273	19:20	40	16:35	40	14:15	75	19:15
6	130	20:10	145	19:30	273	19:30	43	8:35	42	19:15	78	20:20
7	134	20:10	146	19:30	274	19:20	42	16:40	42	19:10	78	20:20
8	139	20:10	143	19:10	269	19:30	44	20:20	41	19:10	83	20:20
9	138	20:10	148	19:20	279	19:20	40	15:30	41	17:20	76	20:20
10	133	20:10	146	19:20	278	19:20	46	8:30	41	19:20	76	20:20
11	132	19:20	140	19:10	270	19:20	42	8:30	41	20:20	79	20:20

Iteration	Average Delay per Phase of Operation (minutes): ORD Departure gate delay at ORD	ORD Arrival predeparture ground delay at origin	ORD Arrival ground delay at ORD	ORD Departure ground delay at ORD	ORD Arrival sequencing and vectoring air delay	Average Delay per All Airport Operations (minutes): Total Airport Delay	Average Time in Operational Phase (minutes) — Arrivals: Airborne	Arrivals: Ground	Arrivals: Total	Departures: Airborne	Departures: Ground	Departures: Total	Arrival Runway Violations: Overlaps	Arrival Runway Violations: Percentage
1	0.5	0.2	0.7	3.7	4.3	4.7	142.8	15.9	158.7	132.9	15.2	148.1	6	0.4%
2	0.5	0.1	0.7	4.0	4.3	4.8	142.8	15.9	158.7	133.0	15.5	148.5	4	0.2%
3	0.6	0.1	0.6	3.9	4.4	4.8	142.8	15.8	158.6	132.1	15.5	147.6	8	0.5%
4	0.5	0.0	0.7	3.5	4.2	4.5	142.8	15.8	158.7	132.9	14.9	147.8	6	0.4%
5	0.4	0.0	0.7	3.4	4.5	4.5	143.1	15.9	159.0	132.7	14.7	147.4	8	0.5%
6	0.4	0.1	0.6	3.5	4.4	4.6	142.8	15.9	158.7	132.9	14.9	147.8	4	0.2%
7	0.6	0.1	0.6	3.8	4.1	4.6	142.6	15.8	158.4	133.0	15.3	148.3	7	0.4%
8	0.4	0.1	0.7	4.0	4.4	4.8	143.0	15.9	158.8	132.8	15.5	148.3	7	0.4%
9	0.5	0.1	0.7	3.7	4.3	4.6	142.8	15.8	158.6	132.7	15.2	147.9	5	0.3%
10	0.5	0.2	0.6	3.4	4.3	4.4	142.6	15.8	158.4	132.8	14.9	147.7	5	0.3%
11	0.5	0.1	0.7	4.0	4.4	4.9	142.9	15.9	158.7	132.7	15.5	148.3	6	0.4%

Note: This table contains relevant statistics for every iteration of the Experiment 52 multi-run.

Source: OMP EIS TAAM Simulation Output Files
Prepared by: Ricondo & Associates, Inc.

Table I-12
2018 VFR-2 Parallel 27s (Trips)

Iteration	Project Name	Seed Randomization Number	Study Date	Schedule Randomization (On/Off)	TAAM Version	Step	Operations: Scheduled Arrival Operations	Operations: Processed Arrival Operations	Operations: Scheduled Departure Operations	Operations: Processed Departure Operations	Operations: Scheduled Total Operations	Operations: Processed Total Operations	Terminations: Flights Terminated During Departure	Terminations: Flights Terminated During Arrival	Terminations: Total Terminated Flights	Terminations: Percentage of Total Terminated Flights
1	KORD_EIS_EXP53	535458	04/03/04	On	2.0.1	1	1687	1681	1687	1686	3374	3367	1	6	7	0.21%
2	KORD_EIS_EXP53	549467	04/03/04	On	2.0.1	1	1687	1678	1687	1687	3374	3365	0	9	9	0.27%
3	KORD_EIS_EXP53	563476	04/03/04	On	2.0.1	1	1687	1678	1687	1687	3374	3365	0	9	9	0.27%
4	KORD_EIS_EXP53	577485	04/03/04	On	2.0.1	1	1687	1679	1687	1687	3374	3366	0	8	8	0.24%
5	KORD_EIS_EXP53	591494	04/03/04	On	2.0.1	1	1687	1679	1687	1687	3374	3366	0	8	8	0.24%
6	KORD_EIS_EXP53	605503	04/03/04	On	2.0.1	1	1687	1676	1687	1686	3374	3362	1	11	12	0.36%
7	KORD_EIS_EXP53	619512	04/03/04	On	2.0.1	1	1687	1675	1687	1687	3374	3362	0	12	12	0.36%
8	KORD_EIS_EXP53	633521	04/03/04	On	2.0.1	1	1687	1681	1687	1687	3374	3368	0	6	6	0.18%
9	KORD_EIS_EXP53	647530	04/03/04	On	2.0.1	1	1687	1678	1687	1685	3374	3363	2	9	11	0.33%
10	KORD_EIS_EXP53	661539	04/03/04	On	2.0.1	1	1687	1681	1687	1687	3374	3368	0	6	6	0.18%
11	KORD_EIS_EXP53	675548	04/03/04	On	2.0.1	1	1687	1682	1687	1685	3374	3367	2	5	7	0.21%

Iteration	Peak Operations (Rolling Hour): Peak Departure Operations	Peak Departure Time	Peak Arrival Operations	Peak Arrival Time	Peak Total Operations	Peak Total Time	Peak Operations (Rolling 15-Minute): Peak Departure Operations	Peak Departure Time	Peak Arrival Operations	Peak Arrival Time	Peak Total Operations	Peak Total Time
1	133	20:10	126	20:40	257	20:10	41	18:45	34	20:20	72	18:40
2	134	14:20	128	19:40	255	19:10	41	13:50	34	20:10	72	17:25
3	135	19:20	130	20:20	261	20:10	45	19:25	36	17:35	76	19:25
4	134	20:10	131	19:40	258	20:10	44	9:30	35	19:20	75	9:30
5	133	20:10	128	20:10	261	20:10	43	15:30	35	20:10	74	15:30
6	133	20:10	130	20:00	261	20:10	44	20:10	35	19:20	75	20:10
7	132	19:30	128	20:40	258	19:30	45	8:30	34	20:35	73	11:30
8	136	20:10	128	20:30	263	20:10	45	15:30	34	20:35	76	15:30
9	138	20:10	127	19:50	262	20:10	42	19:30	35	17:40	74	19:30
10	127	20:10	129	19:40	254	19:30	43	8:25	36	11:30	74	8:25
11	130	20:10	129	20:30	258	20:10	42	20:10	34	20:40	75	20:10

Iteration	Average Delay per Phase of Operation (minutes): ORD Departure gate delay at ORD	ORD Arrival predeparture ground delay at origin	ORD Arrival ground delay at ORD	ORD Departure ground delay at ORD	ORD Arrival sequencing and vectoring air delay	Average Delay per All Airport Operations (minutes): Total Airport Delay	Average Time in Operational Phase (minutes) — Arrivals: Airborne	Arrivals: Ground	Arrivals: Total	Departures: Airborne	Departures: Ground	Departures: Total	Arrival Runway Violations: Overlaps	Arrival Runway Violations: Percentage
1	0.5	0.1	0.6	3.0	5.8	5.0	144.7	15.8	160.5	132.2	14.1	146.3	3	0.2%
2	0.6	0.1	0.7	2.6	6.3	5.1	145.2	15.8	161.0	132.6	13.7	146.3	6	0.4%
3	0.5	0.0	0.7	2.8	5.8	4.9	144.8	15.8	160.6	132.7	13.8	146.5	5	0.3%
4	0.5	0.1	0.7	2.9	6.0	5.1	144.9	16.0	160.8	132.6	14.0	146.6	6	0.4%
5	0.5	0.1	0.8	3.0	5.4	4.9	144.3	15.9	160.3	132.5	14.1	146.6	2	0.1%
6	0.6	0.1	0.9	2.6	5.9	5.0	144.9	16.0	160.9	132.6	13.7	146.3	6	0.4%
7	0.4	0.0	0.6	3.1	5.7	4.9	144.8	15.7	160.5	132.5	14.1	146.6	4	0.2%
8	0.5	0.1	0.9	2.7	6.1	5.1	145.2	16.0	161.1	132.6	13.8	146.5	8	0.5%
9	0.5	0.1	0.6	3.1	5.9	5.1	144.8	15.8	160.6	132.6	14.1	146.7	4	0.2%
10	0.4	0.0	0.6	2.8	6.5	5.2	145.3	15.7	161.0	132.5	13.8	146.3	5	0.3%
11	0.4	0.0	0.7	2.6	5.6	4.7	144.6	15.8	160.5	132.5	13.5	146.0	3	0.2%

Note: This table contains relevant statistics for every iteration of the Experiment 53 multi-run

Source: OMP EIS TAAM Simulation Output Files
Prepared by: Ricondo & Associates, Inc.

OMP Simulation Data Package
2018 With Project

April 2004
DRAFT

Preliminary Draft
For Discussion Purposes Only

O'Hare International Airport

Table I-13
2018 IFR Parallel 9s

Iteration	Project Name	Seed Randomization Number	Study Date	Schedule Randomization (On/Off)	TAAM Version	Step	Operations: Scheduled Arrival Operations	Operations: Processed Arrival Operations	Operations: Scheduled Departure Operations	Operations: Processed Departure Operations	Operations: Scheduled Total Operations	Operations: Processed Total Operations	Terminations: Flights Terminated During Departure	Terminations: Flights Terminated During Arrival	Terminations: Total Terminated Flights	Terminations: Percentage of Total Terminated Flights
1	KORD_EIS_EXP54_011204	535458	04/06/04	On	2.0.1	1	1687	1680	1687	1685	3374	3365	2	7	9	0.27%
2	KORD_EIS_EXP54_011204	549467	04/06/04	On	2.0.1	1	1687	1684	1687	1686	3374	3370	1	3	4	0.12%
3	KORD_EIS_EXP54_011204	563476	04/06/04	On	2.0.1	1	1687	1682	1687	1687	3374	3369	0	5	5	0.15%
4	KORD_EIS_EXP54_011204	577485	04/06/04	On	2.0.1	1	1687	1680	1687	1687	3374	3367	0	7	7	0.21%
5	KORD_EIS_EXP54_011204	591494	04/06/04	On	2.0.1	1	1687	1669	1687	1682	3374	3351	5	18	23	0.68%
6	KORD_EIS_EXP54_011204	605503	04/06/04	On	2.0.1	1	1687	1682	1687	1684	3374	3366	3	5	8	0.24%
7	KORD_EIS_EXP54_011204	619512	04/06/04	On	2.0.1	1	1687	1685	1687	1687	3374	3372	0	2	2	0.06%
8	KORD_EIS_EXP54_011204	633521	04/06/04	On	2.0.1	1	1687	1678	1687	1686	3374	3364	1	9	10	0.30%
9	KORD_EIS_EXP54_011204	647530	04/06/04	On	2.0.1	1	1687	1677	1687	1687	3374	3364	0	10	10	0.30%
10	KORD_EIS_EXP54_011204	675548	04/06/04	On	2.0.1	1	1687	1686	1687	1685	3374	3371	2	1	3	0.09%
11	KORD_EIS_EXP54_011204	689557	04/06/04	On	2.0.1	1	1687	1679	1687	1686	3374	3365	1	8	9	0.27%

Iteration	Peak Operations (Rolling Hour): Peak Departure Operations	Peak Departure Time	Peak Arrival Operations	Peak Arrival Time	Peak Total Operations	Peak Total Time	Peak Operations (Rolling 15-Minute): Peak Departure Operations	Peak Departure Time	Peak Arrival Operations	Peak Arrival Time	Peak Total Operations	Peak Total Time	Average Delay per Phase of Operation (minutes): ORD Departure gate delay at ORD	ORD Arrival predeparture ground delay at origin	ORD Arrival ground delay at ORD	ORD Departure ground delay at ORD	ORD Arrival sequencing and vectoring air delay	Average Delay per All Airport Operations (minutes): Total Airport Delay	Average Time in Operational Phase (minutes) – Arrivals: Airborne	Arrivals: Ground	Arrivals: Total	Departures: Airborne	Departures: Ground	Departures: Total	Arrival Runway Violations: Overlaps	Arrival Runway Violations: Percentage
1	119	19:00	115	21:40	232	19:00	34	20:25	30	21:30	62	20:25	0.6	14.3	1.5	9.9	14.3	20.2	153.7	29.4	183.1	133.0	22.4	155.4	12	0.7%
2	122	19:30	116	21:40	236	19:30	35	19:05	30	21:45	63	19:10	0.6	14.1	0.6	12.5	14.4	21.1	153.9	28.5	182.4	133.0	25.2	158.1	7	0.4%
3	119	16:50	117	15:30	232	19:20	34	20:30	31	15:10	63	20:30	0.5	13.8	0.6	10.9	13.3	19.6	152.8	28.1	180.9	133.1	23.5	156.6	10	0.6%
4	123	16:50	115	21:40	235	16:50	35	20:35	31	15:15	63	20:35	0.4	14.1	1.4	10.9	14.2	20.5	153.5	29.2	182.8	133.1	23.3	156.4	8	0.5%
5	115	20:00	115	21:30	228	19:50	32	22:35	30	21:40	59	19:35	0.7	13.5	2.7	15.8	14.3	23.5	153.8	30.0	183.8	133.0	28.8	161.7	12	0.7%
6	121	16:50	117	21:30	232	16:40	33	11:45	30	21:45	61	20:40	0.5	14.4	2.2	13.0	13.2	21.6	152.7	30.2	182.9	133.0	25.4	158.5	10	0.6%
7	124	16:50	115	21:40	233	21:00	36	20:25	30	21:45	65	20:25	0.5	14.9	0.5	9.4	14.4	19.9	153.9	29.2	183.1	133.1	21.8	154.8	8	0.5%
8	121	16:40	117	19:20	231	21:10	34	19:05	31	21:45	64	19:15	0.5	14.5	1.5	13.4	13.0	21.4	152.6	29.7	182.3	133.1	26.0	159.1	7	0.4%
9	122	21:20	114	21:40	235	21:20	34	20:40	30	20:00	62	20:40	0.5	13.8	0.6	10.1	12.5	18.8	152.0	28.0	179.9	133.1	22.6	155.6	5	0.3%
10	119	17:00	116	21:40	232	19:30	35	18:55	31	21:40	66	18:55	0.4	15.1	0.6	13.4	13.3	21.4	152.8	29.5	182.2	133.0	25.9	158.9	16	0.9%
11	120	21:10	116	20:50	235	21:10	33	20:40	31	15:05	63	19:05	0.6	13.5	1.8	11.9	13.5	20.6	153.0	29.0	182.0	133.0	24.5	157.5	5	0.3%

Note: This table contains relevant statistics for every iteration of the Experiment 54 multi-run.

Source: OMP EIS TAAM Simulation Output Files
Prepared by: Ricondo & Associates, Inc.

Table I-14
2018 IFR Parallel 27s

Iteration	Project Name	Seed Randomization Number	Study Date	Schedule Randomization (On/Off)	TAAM Version	Step	Operations: Scheduled Arrival Operations	Operations: Processed Arrival Operations	Operations: Scheduled Departure Operations	Operations: Processed Departure Operations	Operations: Scheduled Total Operations	Operations: Processed Total Operations	Terminations: Flights Terminated During Departure	Terminations: Flights Terminated During Arrival	Terminations: Total Terminated Flights	Terminations: Percentage of Total Terminated Flights
1	KORD_EIS_EXP55_040204	535458	04/05/04	On	2.0.1	1	1687	1682	1687	1686	3374	3368	1	5	6	0.18%
2	KORD_EIS_EXP55_040204	549467	04/05/04	On	2.0.1	1	1687	1682	1687	1687	3374	3369	0	5	5	0.15%
3	KORD_EIS_EXP55_040204	563476	04/05/04	On	2.0.1	1	1687	1685	1687	1686	3374	3371	1	2	3	0.09%
4	KORD_EIS_EXP55_040204	577485	04/05/04	On	2.0.1	1	1687	1680	1687	1687	3374	3367	0	7	7	0.21%
5	KORD_EIS_EXP55_040204	591494	04/05/04	On	2.0.1	1	1687	1683	1687	1686	3374	3369	1	4	5	0.15%
6	KORD_EIS_EXP55_040204	605503	04/05/04	On	2.0.1	1	1687	1682	1687	1687	3374	3369	0	5	5	0.15%
7	KORD_EIS_EXP55_040204	619512	04/05/04	On	2.0.1	1	1687	1684	1687	1686	3374	3370	1	3	4	0.12%
8	KORD_EIS_EXP55_040204	633521	04/05/04	On	2.0.1	1	1687	1680	1687	1687	3374	3367	0	7	7	0.21%
9	KORD_EIS_EXP55_040204	647530	04/05/04	On	2.0.1	1	1687	1680	1687	1686	3374	3366	1	7	8	0.24%
10	KORD_EIS_EXP55_040204	661539	04/05/04	On	2.0.1	1	1687	1683	1687	1687	3374	3370	0	4	4	0.12%
11	KORD_EIS_EXP55_040204	675548	04/05/04	On	2.0.1	1	1687	1681	1687	1685	3374	3366	2	6	8	0.24%

Iteration	Peak Operations (Rolling Hour): Peak Departure Operations	Peak Departure Time	Peak Arrival Operations	Peak Arrival Time	Peak Total Operations	Peak Total Time	Peak Operations (Rolling 15-Minute): Peak Departure Operations	Peak Departure Time	Peak Arrival Operations	Peak Arrival Time	Peak Total Operations	Peak Total Time	Average Delay per Phase of Operation (minutes): ORD Departure gate delay at ORD	ORD Arrival predeparture ground delay at origin	ORD Arrival ground delay at ORD	ORD Departure ground delay at ORD	ORD Arrival sequencing and vectoring air delay	Average Delay per All Airport Operations (minutes): Total Airport Delay	Average Time in Operational Phase (minutes) – Arrivals: Airborne	Arrivals: Ground	Arrivals: Total	Departures: Airborne	Departures: Ground	Departures: Total	Arrival Runway Violations: Overlaps	Arrival Runway Violations: Percentage
1	121	20:40	115	15:20	233	20:40	33	20:25	31	21:35	61	20:35	0.5	14.9	0.7	8.5	13.6	19.1	153.0	32.1	185.1	132.2	20.7	152.9	6	0.4%
2	121	17:00	115	19:30	232	20:30	34	9:40	31	20:30	61	20:30	0.4	13.9	0.7	8.5	12.0	17.7	151.3	31.0	182.3	132.2	20.6	152.9	5	0.3%
3	116	20:30	116	20:00	229	20:30	34	9:30	30	21:15	60	14:50	0.7	14.6	0.6	8.2	13.6	18.8	153.0	31.7	184.6	132.3	20.5	152.8	3	0.2%
4	117	19:00	116	20:00	228	20:30	33	18:35	31	21:35	59	20:30	0.5	14.9	0.6	9.3	13.7	19.5	152.9	32.0	184.9	132.3	21.5	153.8	7	0.4%
5	121	9:40	117	20:00	232	20:30	34	18:30	31	19:40	61	18:30	0.5	14.1	0.6	8.0	14.3	18.8	153.6	31.2	184.9	131.8	20.3	152.1	7	0.4%
6	119	20:10	116	20:10	235	20:10	34	9:30	30	21:35	61	20:55	0.5	13.8	0.6	8.9	14.4	19.1	153.7	30.9	184.6	132.3	21.0	153.3	6	0.4%
7	120	10:00	116	19:40	231	20:30	34	9:50	31	21:25	60	21:25	0.4	14.3	0.7	12.6	11.8	19.9	151.0	31.5	182.5	132.2	24.9	157.1	5	0.3%
8	126	20:50	117	19:50	235	20:50	33	20:55	31	19:05	61	20:30	0.7	14.0	0.8	9.2	12.9	18.8	152.2	31.3	183.5	132.3	21.6	153.8	3	0.2%
9	123	20:10	117	19:30	237	20:10	33	19:30	31	20:20	63	19:30	0.4	14.8	0.8	8.1	11.5	17.8	150.6	32.0	182.6	132.2	20.2	152.4	1	0.1%
10	121	16:30	115	20:10	232	20:10	34	18:30	31	21:45	61	18:55	0.5	14.8	0.7	9.5	13.0	19.2	152.4	32.0	184.4	132.2	21.6	153.8	3	0.2%
11	120	17:00	115	19:40	230	19:30	34	9:40	31	20:30	60	19:20	0.5	14.5	0.6	6.7	13.3	17.8	152.6	31.5	184.1	131.8	18.8	150.5	2	0.1%

Note: This table contains relevant statistics for every iteration of the Experiment 55 multi-run.

Source: OMP EIS TAAM Simulation Output Files
Prepared by: Ricondo & Associates, Inc.

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Table I-15
2018 With Project Multi-Iteration Summary

This table contains averages over each experiment's multi-run. The "lumped" average delays and operational phase times were computed by adding times associated with all eleven iterations of the multi-run and dividing by the total of aircraft operations simulated in all eleven iterations. The peak operations shown are straight averages of the eleven iterations.

		Peak Operations (Rolling Hour)			Peak Operations (Rolling 15-Minute)			Average Delay per Phase of Operation (minutes)					Average Delay per All Airport Operations (minutes)	Average Unimpeded Travel Times (minutes)						Average Time in Operational Phase (minutes)					
														Arrivals			Departures			Arrivals			Departures		
	Experiment	Peak Departure Operations	Peak Arrival Operations	Peak Total Operations	Peak Departure Operations	Peak Arrival Operations	Peak Total Operations	ORD Departure gate delay at ORD	ORD Arrival predeparture ground delay at origin	ORD Arrival ground delay at ORD	ORD Departure ground delay at ORD	ORD Arrival sequencing and vectoring air delay	Total Airport Delay	Airborne	Ground	Total	Airborne	Ground	Total	Airborne	Ground	Total	Airborne	Ground	Total
AVERAGE	33	132	134	260	42	42	76	0.6	0.0	0.4	3.8	3.6	4.2	138.9	14.4	153.2	132.8	10.9	143.8	142.4	14.8	157.2	132.8	15.3	148.1
	51	133	132	261	43	36	74	0.5	0.0	0.4	3.0	5.3	4.6	139.2	14.4	153.6	132.6	11.2	143.8	144.5	14.8	159.3	132.6	14.7	147.3
	52	135	144	272	43	41	77	0.5	0.1	0.7	3.8	4.3	4.7	138.5	15.1	153.6	132.8	11.0	143.8	142.8	15.9	158.7	132.8	15.3	148.0
	53	134	129	259	43	35	74	0.5	0.1	0.7	2.9	5.9	5.0	139.0	15.1	154.0	132.6	10.6	143.1	144.9	15.8	160.7	132.6	13.9	146.4
	54	121	116	233	34	30	63	0.5	14.2	1.2	11.7	13.7	20.7	139.5	13.7	153.2	133.0	12.0	145.1	153.2	29.0	182.2	133.0	24.3	157.3
	55	121	116	232	34	31	61	0.5	14.4	0.7	9.0	13.1	18.8	139.3	16.5	155.8	132.2	11.7	143.9	152.4	31.5	183.9	132.2	21.3	153.4
	Annualized	133	135	262	42	38	74	0.5	1.4	0.6	4.1	5.6	6.1	138.8	14.9	153.7	132.7	11.0	143.7	144.4	16.9	161.3	132.7	15.5	148.2

This table contains each experiment's median run as taken from the eleven iterations of each multi-run.

		Peak Departure Operations	Peak Arrival Operations	Peak Total Operations	Peak Departure Operations	Peak Arrival Operations	Peak Total Operations	ORD Departure gate delay at ORD	ORD Arrival predeparture ground delay at origin	ORD Arrival ground delay at ORD	ORD Departure ground delay at ORD	ORD Arrival sequencing and vectoring air delay	Total Airport Delay	Airborne	Ground	Total	Airborne	Ground	Total	Airborne	Ground	Total	Airborne	Ground	Total
MEDIAN	33	131	138	263	40	43	79	0.6	0.0	0.4	3.8	3.6	4.2	138.9	14.4	153.3	132.9	11.0	143.8	142.5	14.8	157.2	132.9	15.4	148.2
	51	132	134	265	44	36	73	0.5	0.0	0.4	3.1	5.2	4.6	139.2	14.4	153.6	132.7	11.2	143.9	144.4	14.8	159.2	132.7	14.8	147.6
	52	138	148	279	40	41	76	0.5	0.1	0.7	3.7	4.3	4.6	138.5	15.1	153.6	132.7	11.0	143.7	142.8	15.8	158.6	132.7	15.2	147.9
	53	133	130	261	44	35	75	0.6	0.1	0.9	2.6	5.9	5.0	139.0	15.1	154.0	132.6	10.5	143.1	144.9	16.0	160.9	132.6	13.7	146.3
	54	120	116	235	33	31	63	0.6	13.5	1.8	11.9	13.5	20.6	139.4	13.8	153.2	133.0	12.0	145.0	152.9	29.0	182.0	133.0	24.5	157.5
	55	116	116	229	34	30	60	0.7	14.6	0.6	8.2	13.6	18.8	139.4	16.5	155.9	132.3	11.7	144.0	153.0	31.7	184.6	132.3	20.5	152.8
	Annualized	133	138	266	41	38	74	0.5	1.4	0.7	4.0	5.6	6.1	138.8	14.9	153.8	132.7	11.0	143.7	144.4	17.0	161.4	132.7	15.5	148.2

This table shows the differences between the averages of the multi-run and the median runs.

		Peak Departure Operations	Peak Arrival Operations	Peak Total Operations	Peak Departure Operations	Peak Arrival Operations	Peak Total Operations	ORD Departure gate delay at ORD	ORD Arrival predeparture ground delay at origin	ORD Arrival ground delay at ORD	ORD Departure ground delay at ORD	ORD Arrival sequencing and vectoring air delay	Total Airport Delay	Airborne	Ground	Total	Airborne	Ground	Total	Airborne	Ground	Total	Airborne	Ground	Total
Difference	33	1	-4	-3	2	-1	-3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1	-0.1
	51	1	-2	-4	-1	0	1	0.0	0.0	0.0	-0.1	0.1	0.0	0.0	0.0	0.0	-0.1	0.0	-0.2	0.1	0.0	0.1	-0.1	-0.1	-0.3
	52	-3	-4	-7	3	0	1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.1	0.0	0.1	0.1	0.1
	53	1	-1	-2	-1	0	-1	-0.1	0.0	-0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.2	-0.2	0.0	0.2	0.1
	54	1	0	-2	1	-1	0	-0.1	0.7	-0.7	-0.2	0.2	0.0	0.1	-0.1	0.0	0.0	0.0	0.0	0.3	0.0	0.3	0.0	-0.2	-0.2
	55	5	0	3	0	1	1	-0.2	-0.2	0.0	0.9	-0.5	0.0	-0.1	0.0	-0.1	-0.1	0.0	-0.1	-0.6	-0.1	-0.7	-0.1	0.7	0.6
	Difference (Average Minus Median)	-1	-3	-4	1	0	0	0.0	0.0	-0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.1	0.1

Source: OMP EIS TAAM Simulation Output Files
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Table I-16
Peak Month Average Day (PMAD) Conversion to Average Annual Day (AAD)

This table contains the peak month average day (PMAD) delays and travel times averaged over each experiment's multi-run as reported in Table I-15.

		Average Delay per Phase of Operation (minutes)					Average Delay per All Airport Operations (minutes)	Average Unimpeded Travel Times (minutes)						Average Time in Operational Phase (minutes)					
								Arrivals			Departures			Arrivals			Departures		
	Experiment	ORD Departure gate delay at ORD	ORD Arrival predeparture ground delay at origin	ORD Arrival ground delay at ORD	ORD Departure ground delay at ORD	ORD Arrival sequencing and vectoring air delay	Total Airport Delay	Airborne	Ground	Total	Airborne	Ground	Total	Airborne	Ground	Total	Airborne	Ground	Total
PMAD	33	0.6	0.0	0.4	3.8	3.6	4.2	138.9	14.4	153.2	132.8	10.9	143.8	142.4	14.8	157.2	132.8	15.3	148.1
	51	0.5	0.0	0.4	3.0	5.3	4.6	139.2	14.4	153.6	132.6	11.2	143.8	144.5	14.8	159.3	132.6	14.7	147.3
	52	0.5	0.1	0.7	3.8	4.3	4.7	138.5	15.1	153.6	132.8	11.0	143.8	142.8	15.9	158.7	132.8	15.3	148.0
	53	0.5	0.1	0.7	2.9	5.9	5.0	139.0	15.1	154.0	132.6	10.6	143.1	144.9	15.8	160.7	132.6	13.9	146.4
	54	0.5	14.2	1.2	11.7	13.7	20.7	139.5	13.7	153.2	133.0	12.0	145.1	153.2	29.0	182.2	133.0	24.3	157.3
	55	0.5	14.4	0.7	9.0	13.1	18.8	139.3	16.5	155.8	132.2	11.7	143.9	152.4	31.5	183.9	132.2	21.3	153.4
	Annualized	0.5	1.4	0.6	4.1	5.6	6.1	138.8	14.9	153.7	132.7	11.0	143.7	144.4	16.9	161.3	132.7	15.5	148.2

This table contains the annual average day (AAD) delays and travel times. They were computed by multiplying the PMAD values in the above table by a conversion factor of 96%.

AAD	33	0.6	0.0	0.4	3.6	3.4	4.0	138.9	14.4	153.2	132.8	10.9	143.8	142.3	14.8	157.0	132.8	15.1	147.9
	51	0.5	0.0	0.4	2.9	5.0	4.4	139.2	14.4	153.6	132.6	11.2	143.8	144.3	14.8	159.1	132.6	14.6	147.2
	52	0.5	0.1	0.6	3.6	4.1	4.5	138.5	15.1	153.6	132.8	11.0	143.8	142.6	15.8	158.4	132.8	15.1	147.9
	53	0.4	0.1	0.7	2.8	5.7	4.8	139.0	15.1	154.0	132.6	10.6	143.1	144.6	15.8	160.4	132.6	13.8	146.3
	54	0.5	13.6	1.1	11.3	13.2	19.8	139.5	13.7	153.2	133.0	12.0	145.1	152.7	28.4	181.1	133.0	23.8	156.8
	55	0.5	13.8	0.6	8.7	12.6	18.1	139.3	16.5	155.8	132.2	11.7	143.9	151.9	30.9	182.8	132.2	20.9	153.1
	Annualized	0.5	1.3	0.6	3.9	5.4	5.8	138.8	14.9	153.7	132.7	11.0	143.7	144.2	16.9	161.0	132.7	15.4	148.0

Source: OMP EIS TAAM Simulation Output Files
Prepared by: Ricondo & Associates, Inc.

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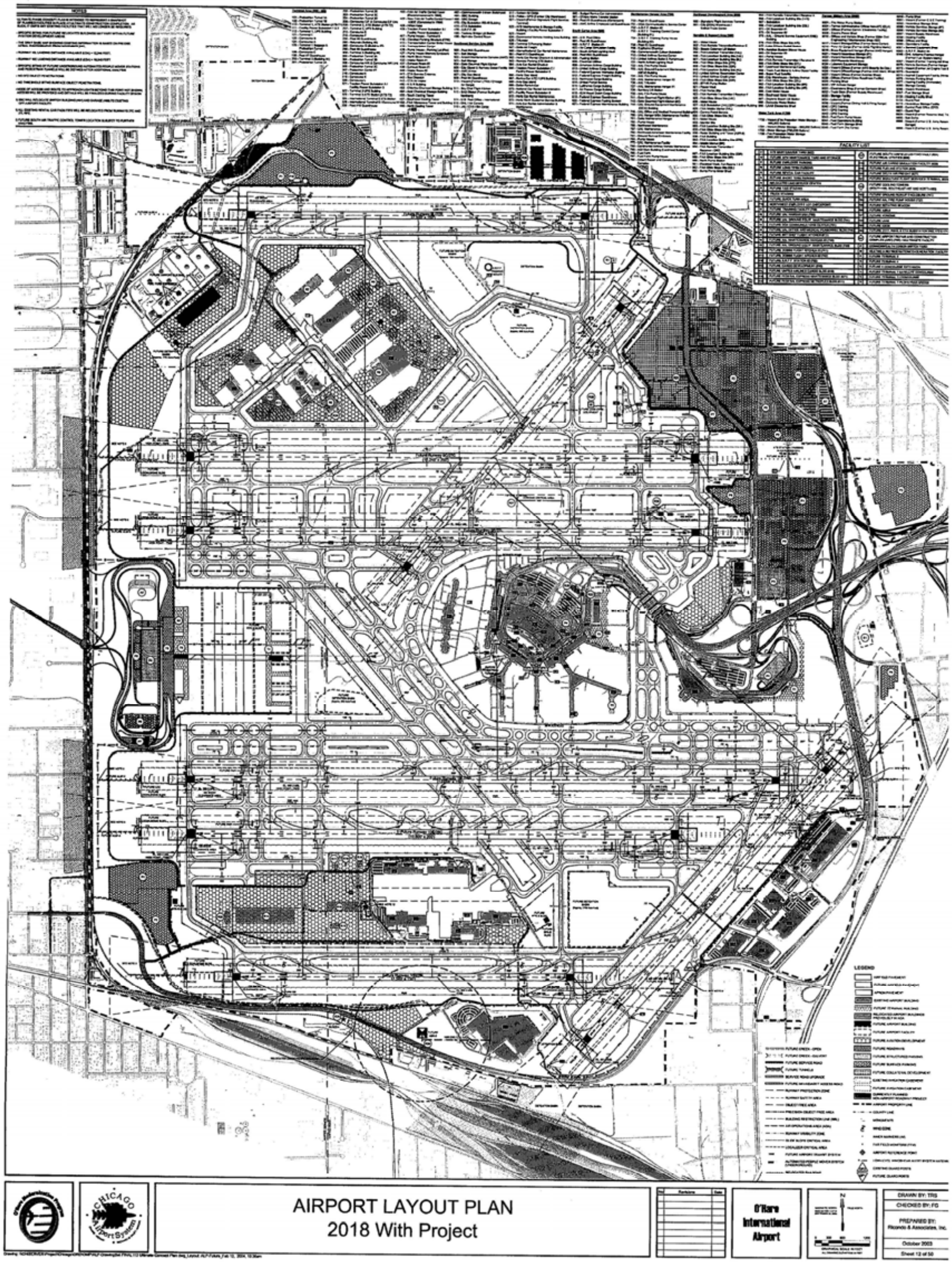
1.6 Airport Layout Plan and Gating Exhibits

The following pages contain exhibits including the 2018 With Project Airport Layout Plan (ALP). The 2018 PMAD unconstrained gate allocation process resulted in the 2018 PMAD With Project Gate Allocation exhibits, the 2018 PMAD With Project GA and Cargo Parking exhibit, and the 2018 Unconstrained Ramp Charts.


AIRPORT LAYOUT PLAN
2018 With Project
O'Hare International Airport


Future Runway 9R/27L
(11,260' x 150')
LEGEND
AAL American Airlines
ASA Alaska Airlines
AWE America West Airlines
COA Continental Airlines
EGF American Eagle
JBU JetBlue Airways
NWA Northwest Airlines
OTH Other Domestic Airlines (Frontire, etc.)
UAL United Airlines
USA US Airways
O'Hare International Airport
2018 PMAD Gate Allocation
With Project Scenarios
Terminal Core
RICONDO & ASSOCIATES
SERVICE ROAD
PENALTY BOX
LOC
EL 655.8 MSL
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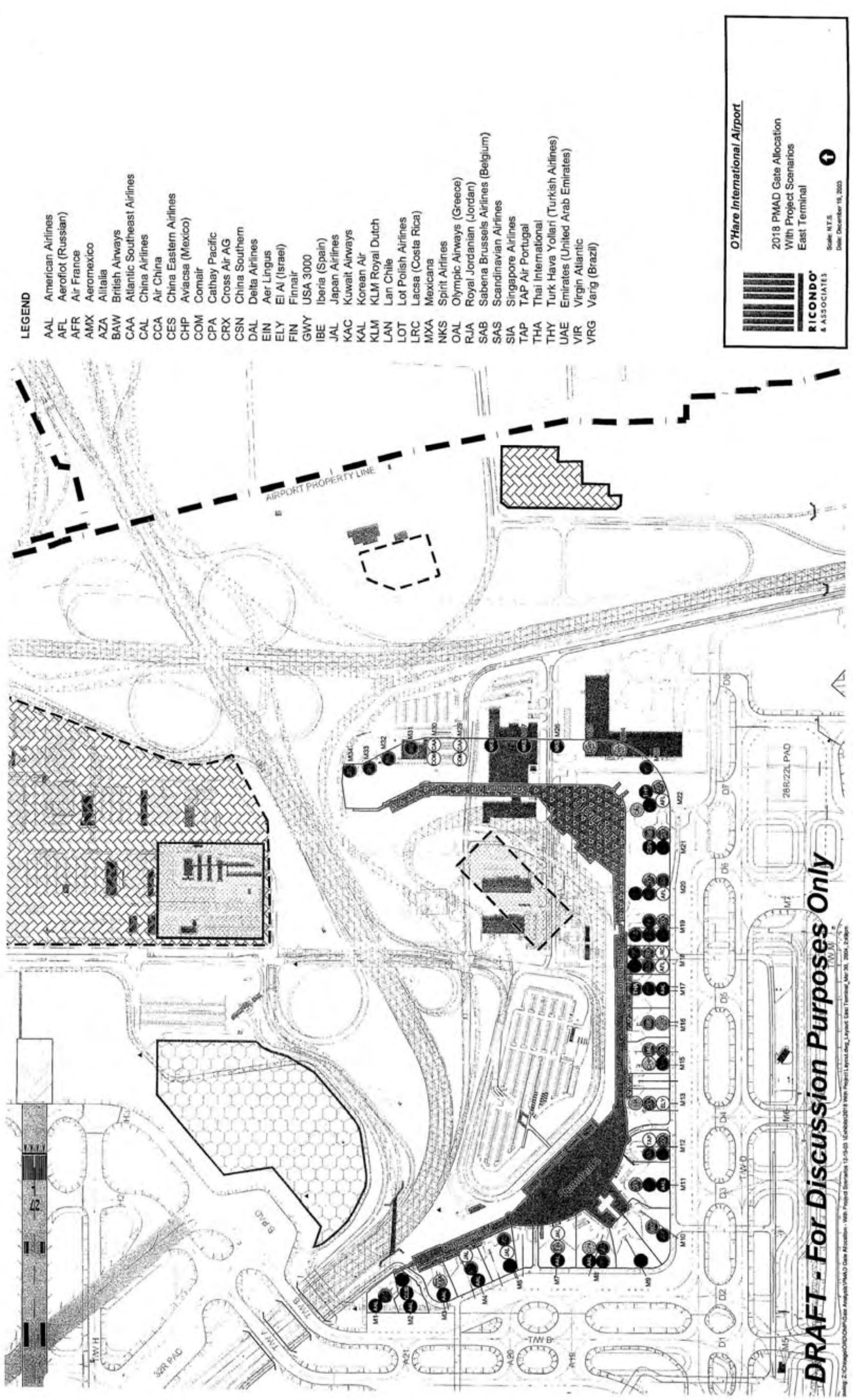
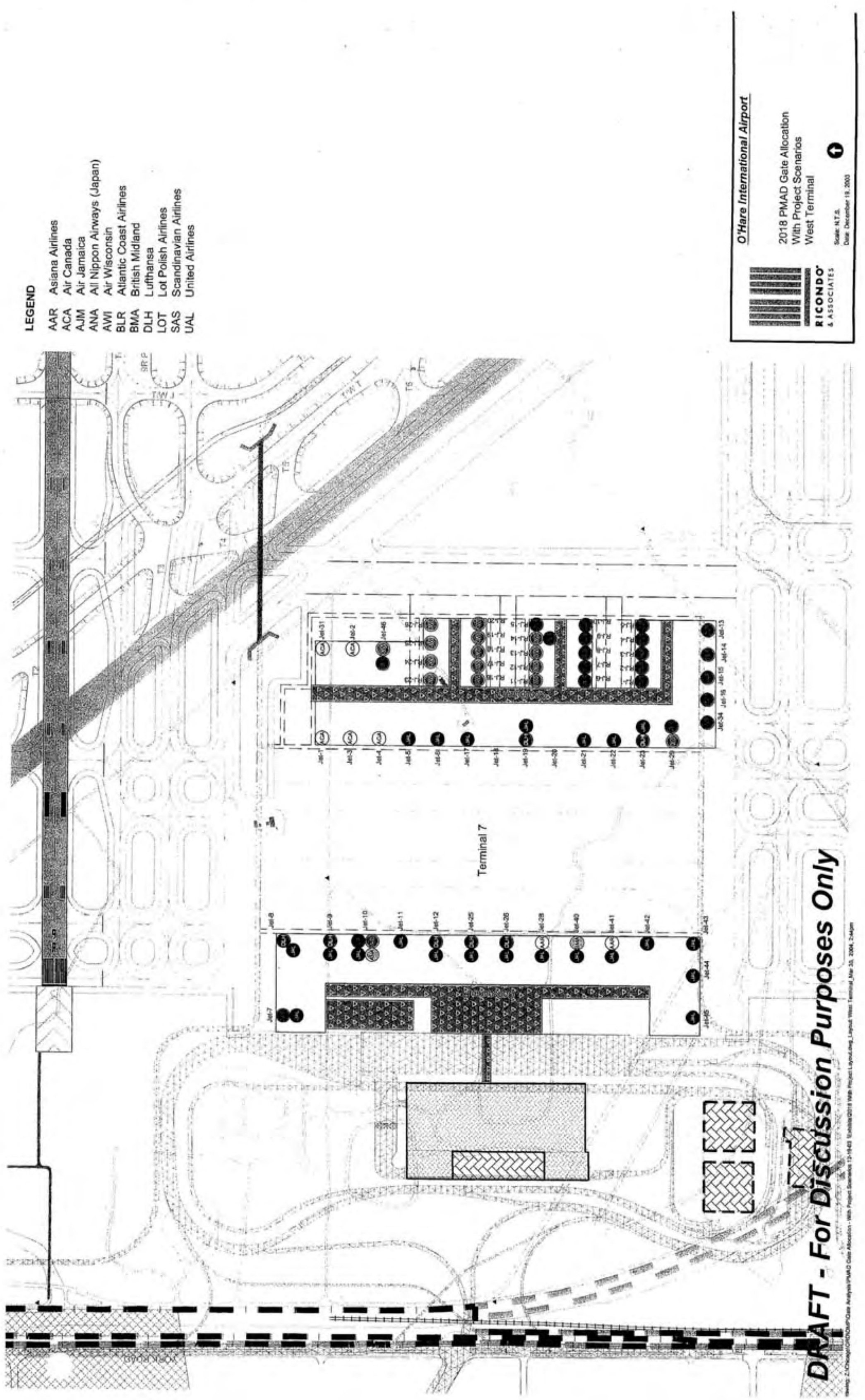
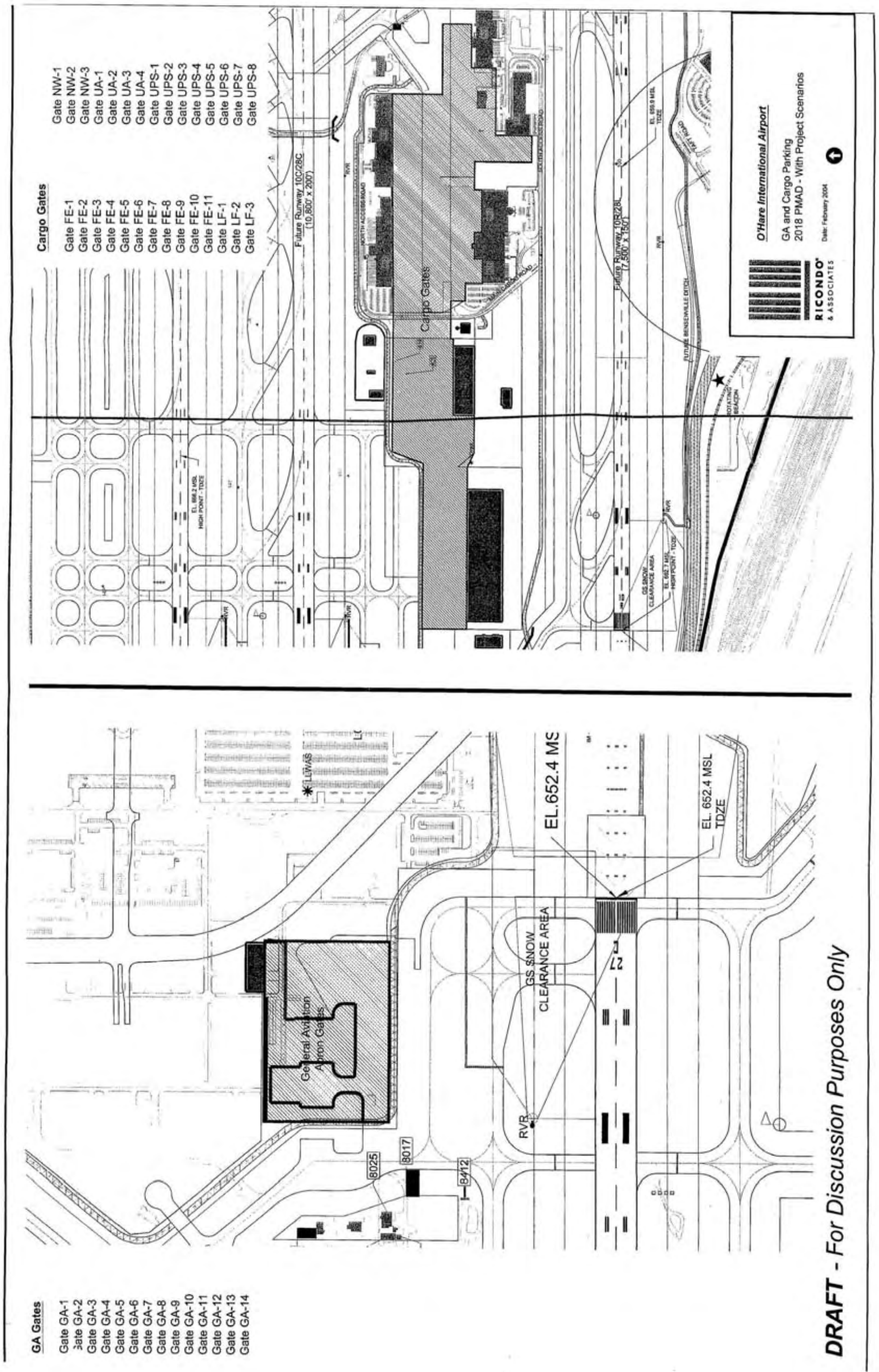
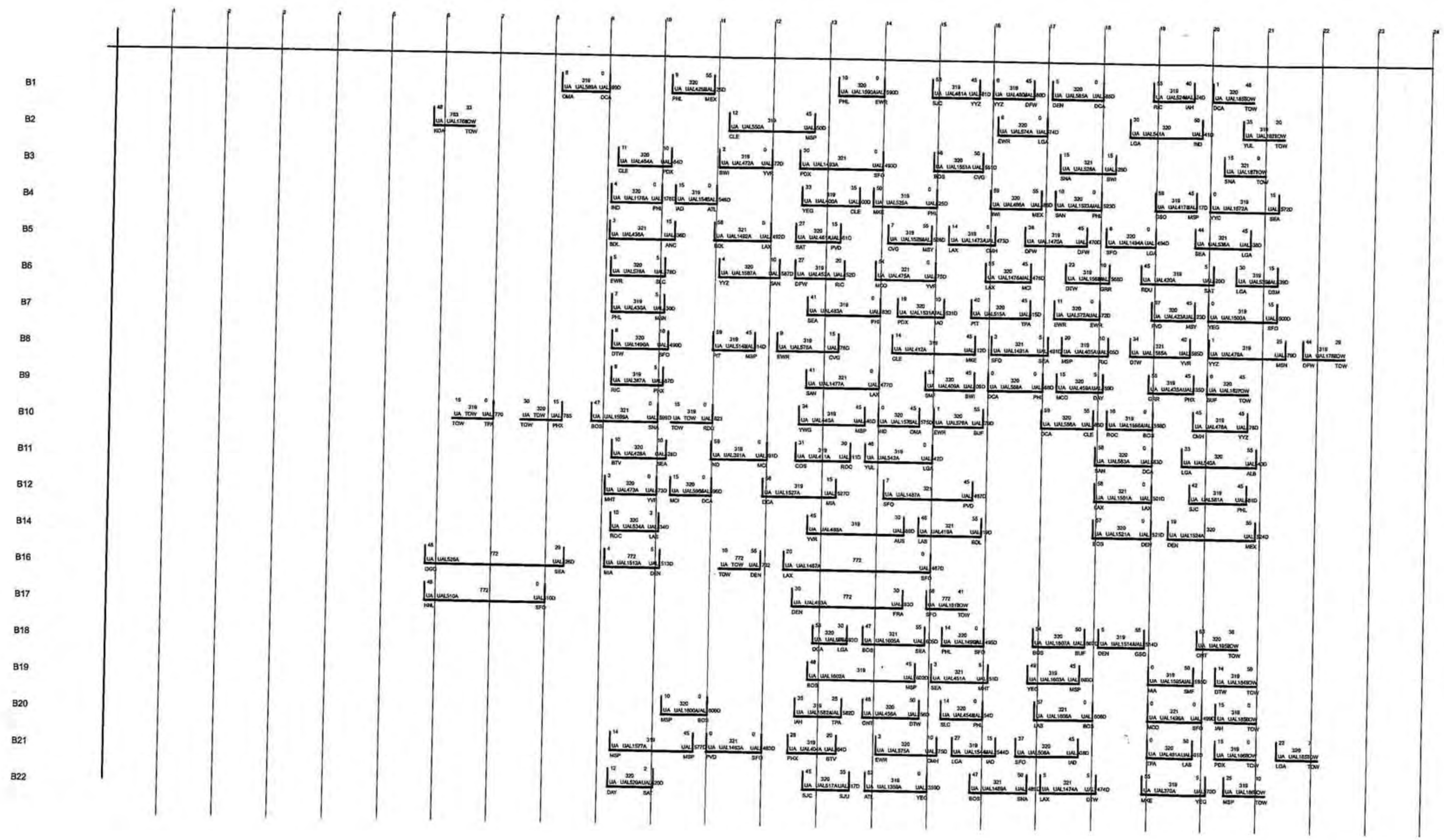

LEGEND
AAL American Airlines
AFL Aeroflot (Russian)
AFR Air France
AMX Aeromexico
AZA Alitalia
BAW British Airways
CAA Atlantic Southeast Airlines
CAL China Airlines
CCA Air China
CES China Eastern Airlines
CHP Aviacsa (Mexico)
COM Comair
CPA Cathay Pacific
CRX Cross Air AG
CSN China Southern
DAL Delta Airlines
EIN Aer Lingus
ELY El Al (Israel)
FIN Finnair
GWY USA 3000
IBE Iberia (Spain)
JAL Japan Airlines
KAC Kuwait Airways
KAL Korean Air
KLM KLM Royal Dutch
LAN Lan Chile
LOT Lot Polish Airlines
LRC Lacsa (Costa Rica)
MXA Mexicana
NKS Spirit Airlines
OAL Olympic Airways (Greece)
RJA Royal Jordanian (Jordan)
SAB Sabena Brussels Airlines (Belgium)
SAS Scandinavian Airlines
SIA Singapore Airlines
TAP TAP Air Portugal
THA Thai International
THY Turk Hava Yollari (Turkish Airlines)
UAE Emirates (United Arab Emirates)
VIR Virgin Atlantic
VRG Varig (Brazil)
O'Hare International Airport
2018 PMAD Gate Allocation
With Project Scenarios
East Terminal
RICONDO & ASSOCIATES
Scale: N.T.S.
Date: December 19, 2003
AIRPORT PROPERTY LINE
26R/22L PAD
32R PAD
DRAFT - For Discussion Purposes Only


LEGEND
AAR Asiana Airlines
ACA Air Canada
AJM Air Jamaica
ANA All Nippon Airways (Japan)
AWI Air Wisconsin
BLR Atlantic Coast Airlines
BMA British Midland
DLH Lufthansa
LOT Lot Polish Airlines
SAS Scandinavian Airlines
UAL United Airlines
O'Hare International Airport
2018 PMAD Gate Allocation
With Project Scenarios
West Terminal
RICONDO & ASSOCIATES
Terminal 7
DRAFT - For Discussion Purposes Only


Cargo Gates
Gate FE-1
Gate FE-2
Gate FE-3
Gate FE-4
Gate FE-5
Gate FE-6
Gate FE-7
Gate FE-8
Gate FE-9
Gate FE-10
Gate FE-11
Gate LF-1
Gate LF-2
Gate LF-3
Gate NW-1
Gate NW-2
Gate NW-3
Gate UA-1
Gate UA-2
Gate UA-3
Gate UA-4
Gate UPS-1
Gate UPS-2
Gate UPS-3
Gate UPS-4
Gate UPS-5
Gate UPS-6
Gate UPS-7
Gate UPS-8
Future Runway 10C/28C (10,800' x 200')
Cargo Gates
Future Runway 10R/28L (7,500' x 150')
O'Hare International Airport
GA and Cargo Parking
2018 PMAD - With Project Scenarios
RICONDO & ASSOCIATES
GA Gates
Gate GA-1
Gate GA-2
Gate GA-3
Gate GA-4
Gate GA-5
Gate GA-6
Gate GA-7
Gate GA-8
Gate GA-9
Gate GA-10
Gate GA-11
Gate GA-12
Gate GA-13
Gate GA-14
General Aviation Apron Gates
GS SNOW CLEARANCE AREA
RVR
EL.652.4 MSL
EL. 652.4 MSL TDZE
8025
8017
8412
DRAFT - For Discussion Purposes Only

Note: Gating Ramp Charts are included for presentation purposes only. Actual charts are plan sheet size.

O'Hare Modernization Program
2018 Unconstrained Ramp Chart



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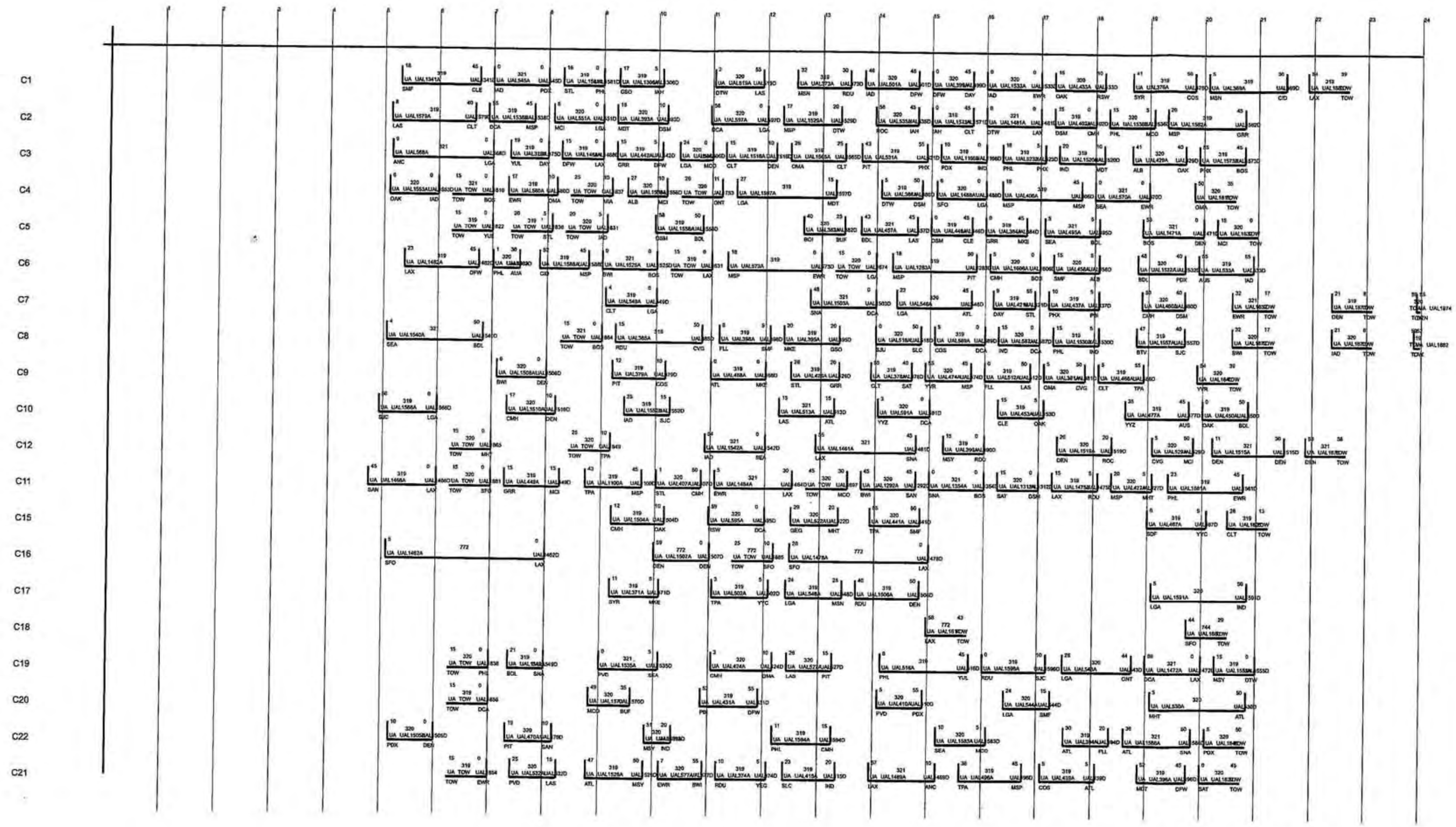
Page 1

Note: Gating Ramp Charts are included for presentation purposes only. Actual charts are plan sheet size.

O'Hare Modernization Program
2018 Unconstrained Ramp Chart



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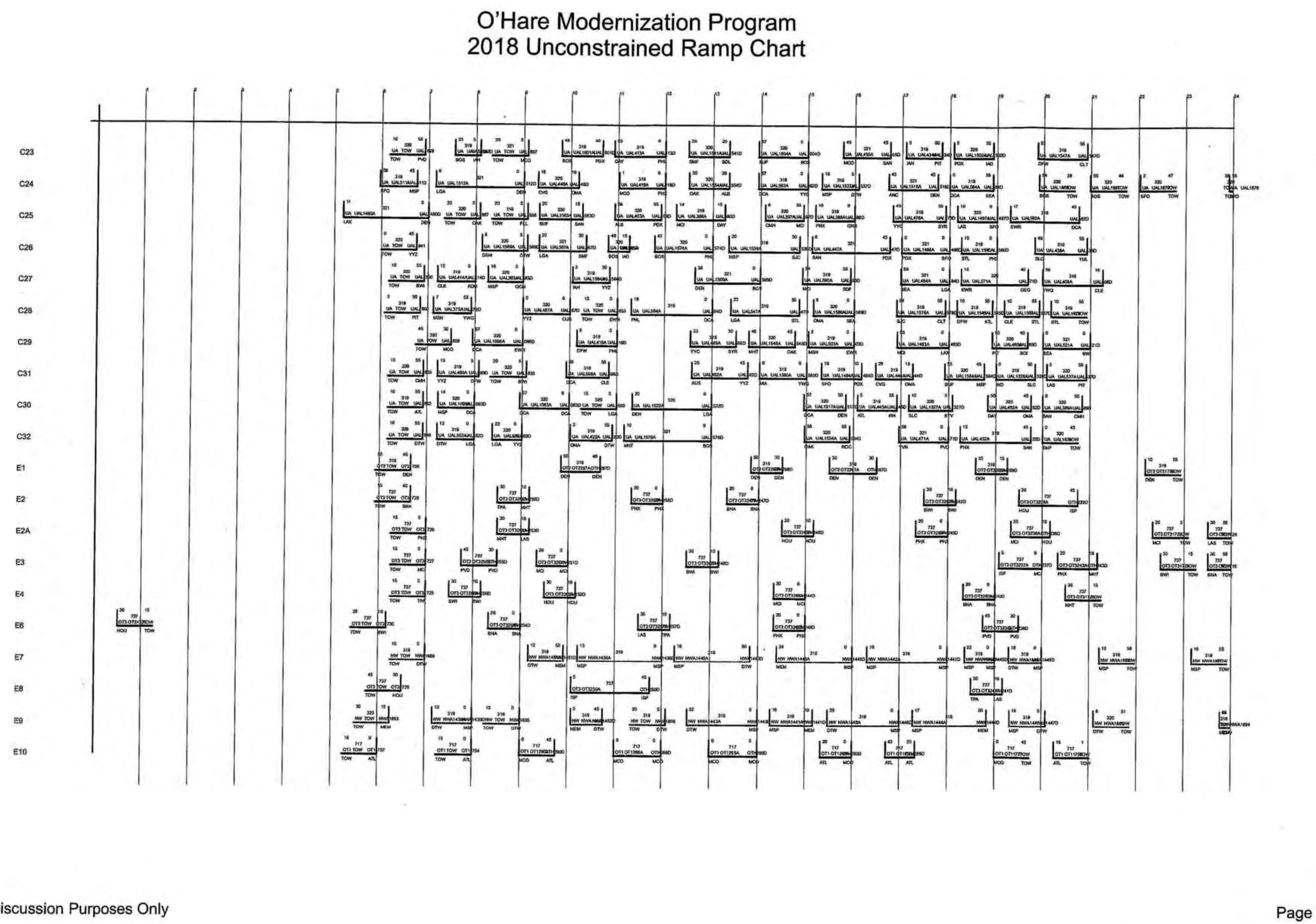
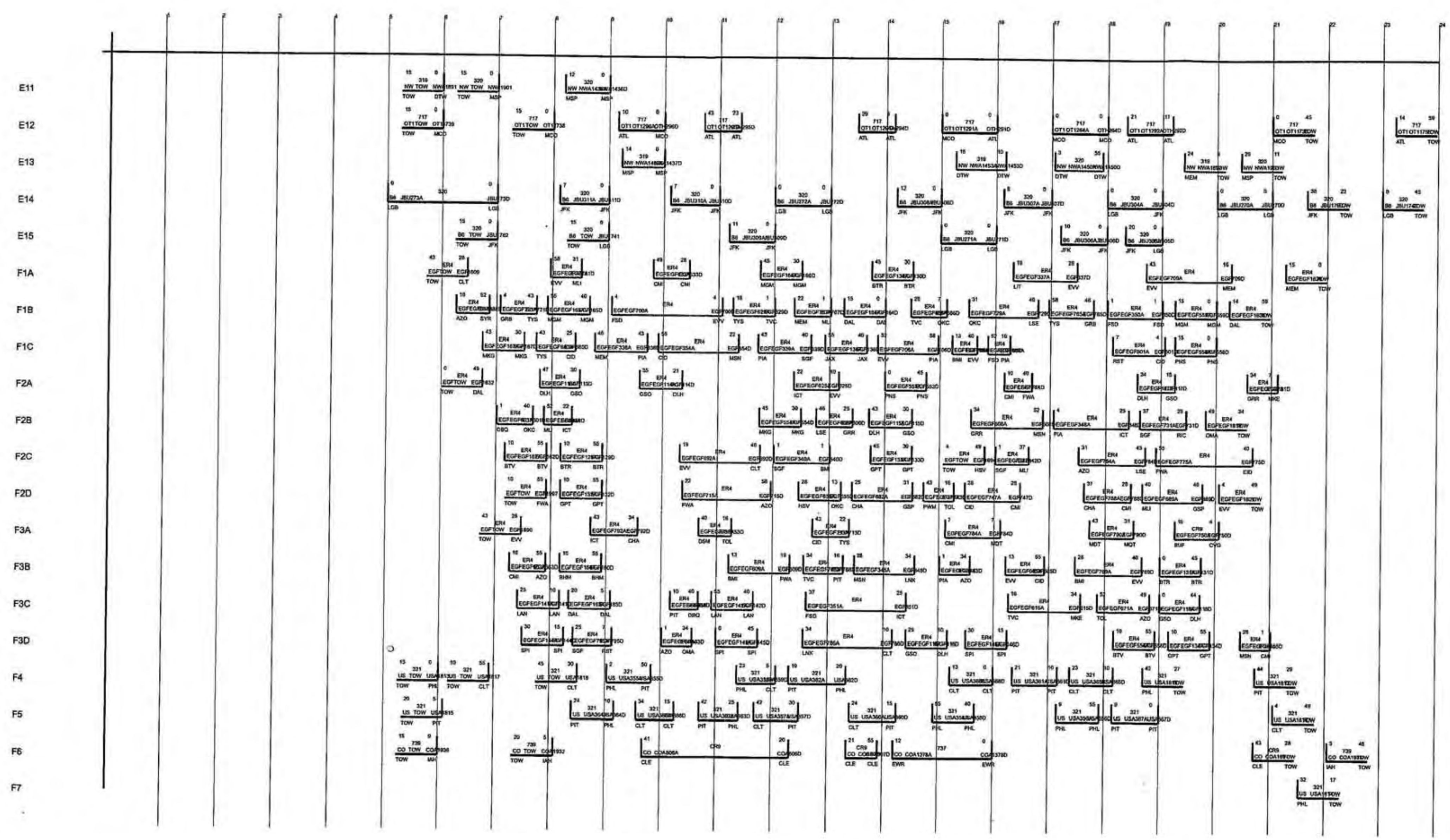
Page 2

Note: Gating Ramp Charts are included for presentation purposes only. Actual charts are plan sheet size.



Note: Gating Ramp Charts are included for presentation purposes only. Actual charts are plan sheet size.

O'Hare Modernization Program
2018 Unconstrained Ramp Chart



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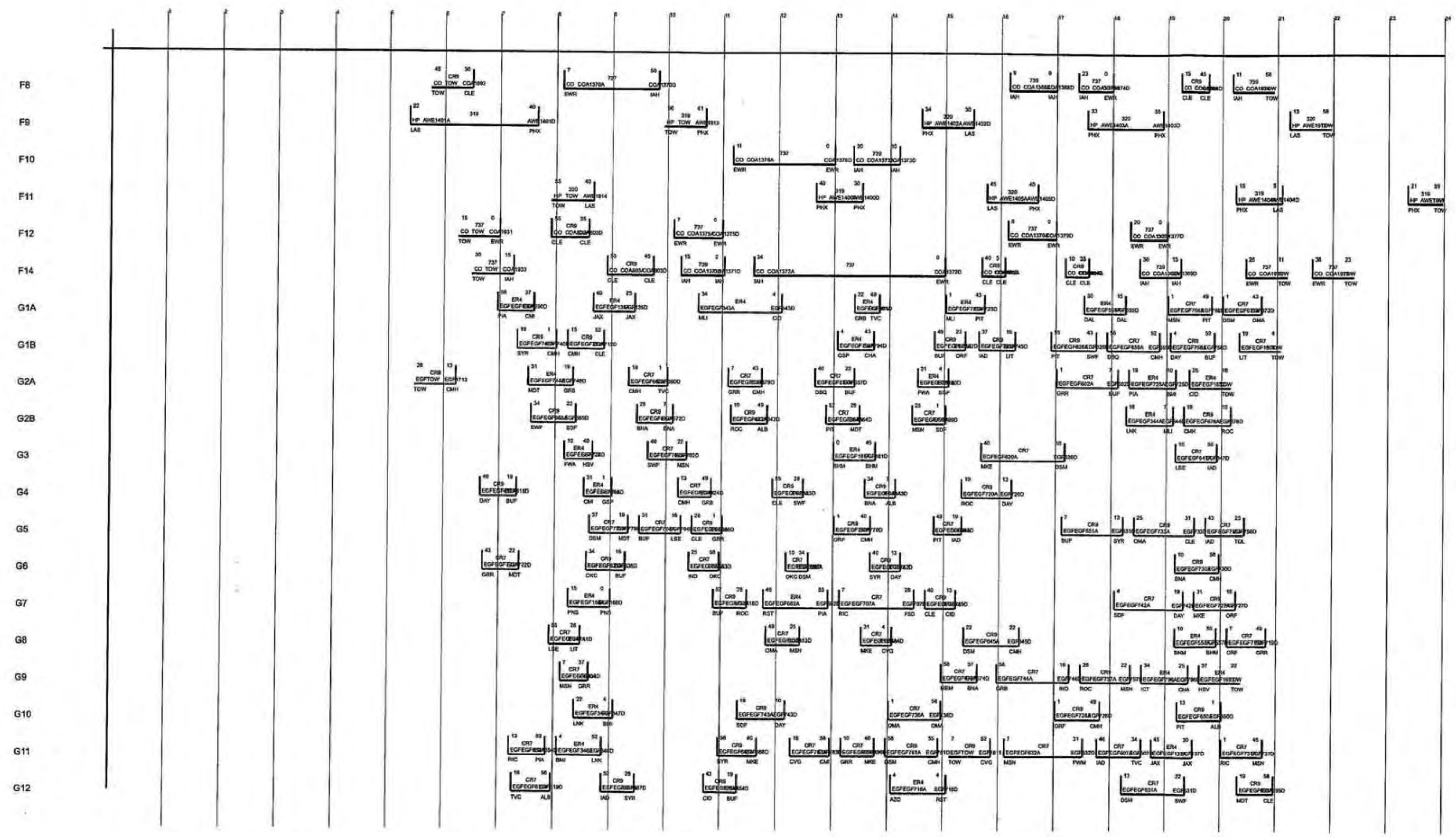
Page 4

Note: Gating Ramp Charts are included for presentation purposes only. Actual charts are plan sheet size.

O'Hare Modernization Program
2018 Unconstrained Ramp Chart



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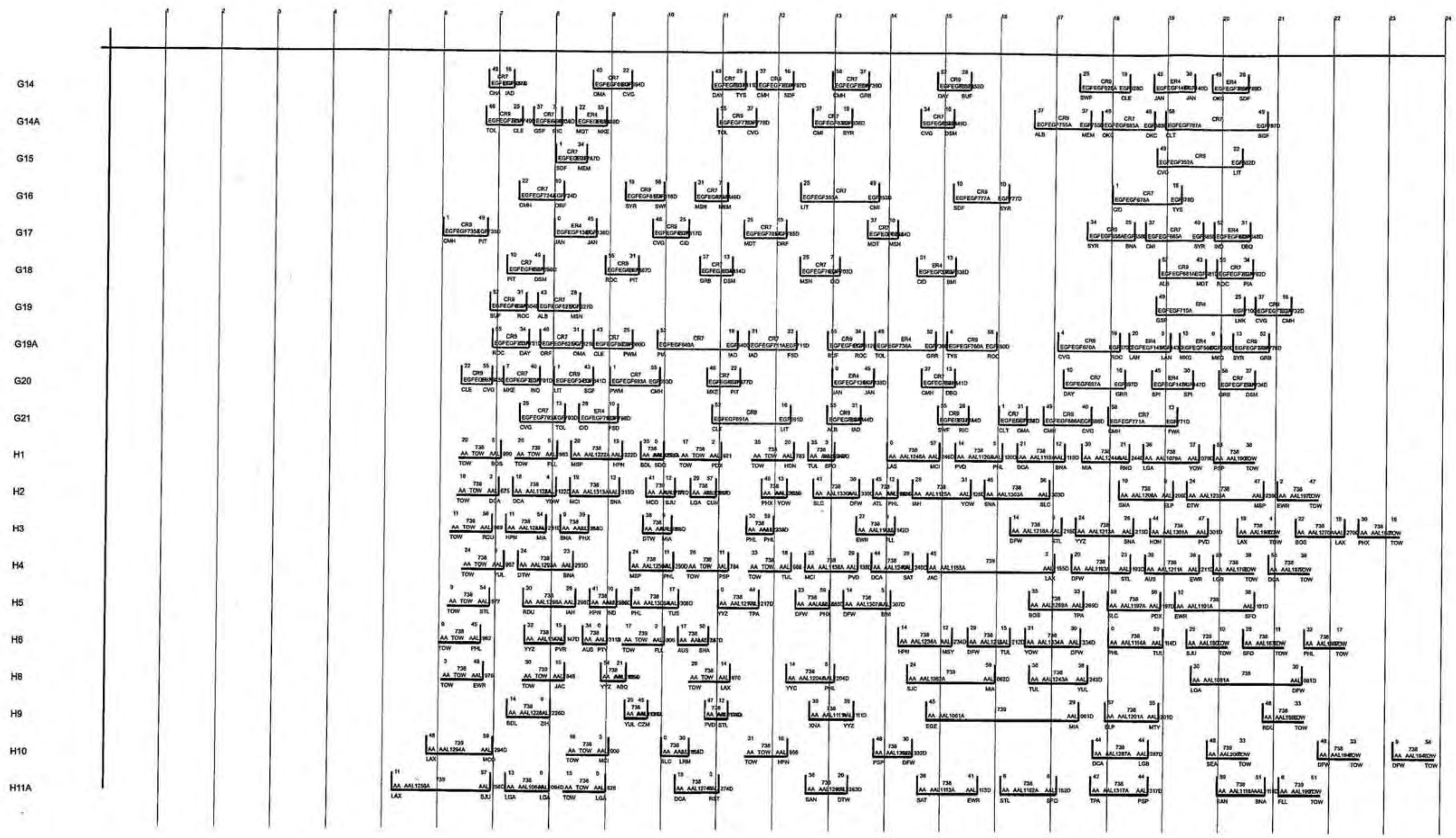
Page 5

Note: Gating Ramp Charts are included for presentation purposes only. Actual charts are plan sheet size.

O'Hare Modernization Program
2018 Unconstrained Ramp Chart



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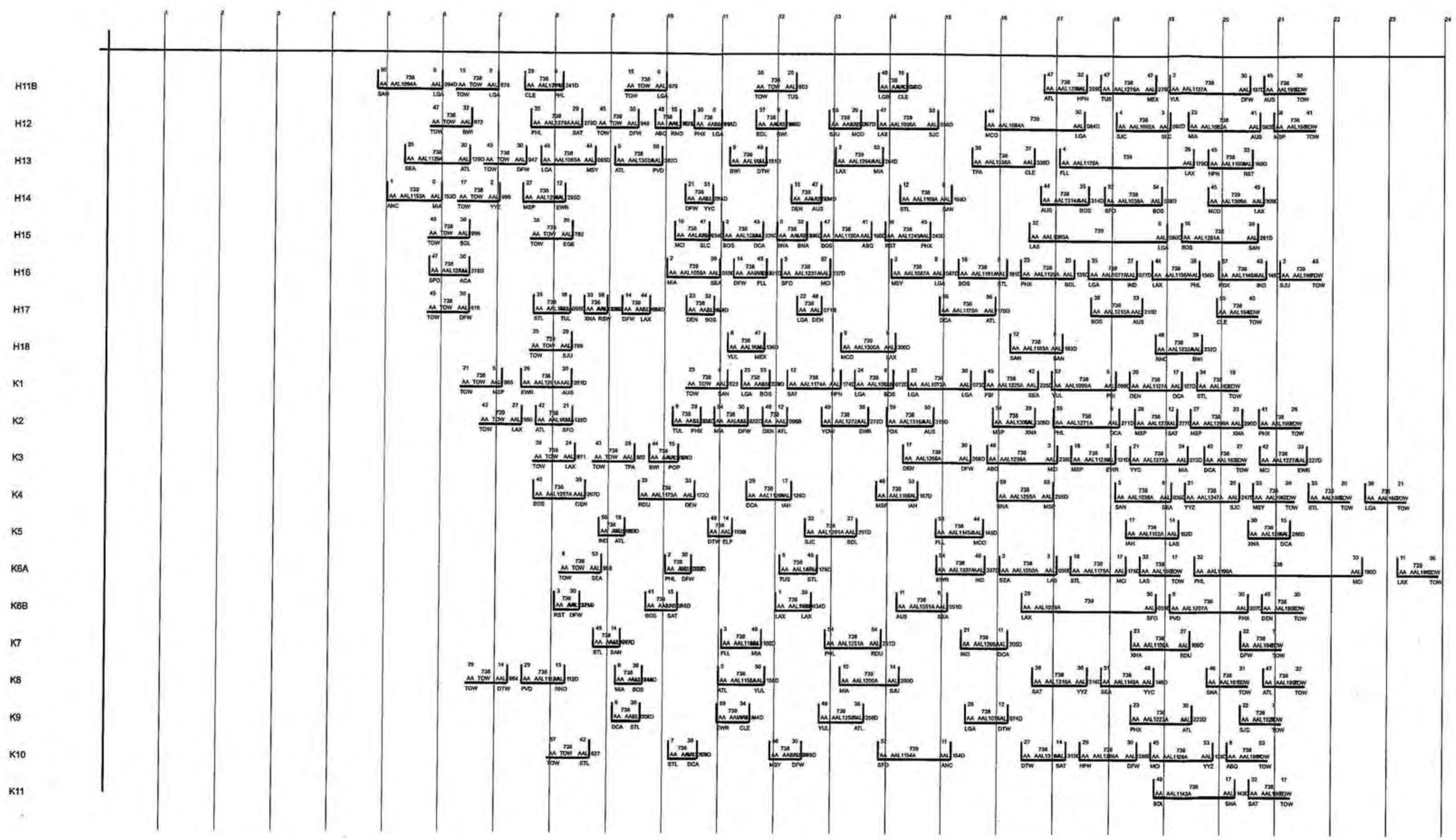
Page 6

Note: Gating Ramp Charts are included for presentation purposes only. Actual charts are plan sheet size.

O'Hare Modernization Program
2018 Unconstrained Ramp Chart



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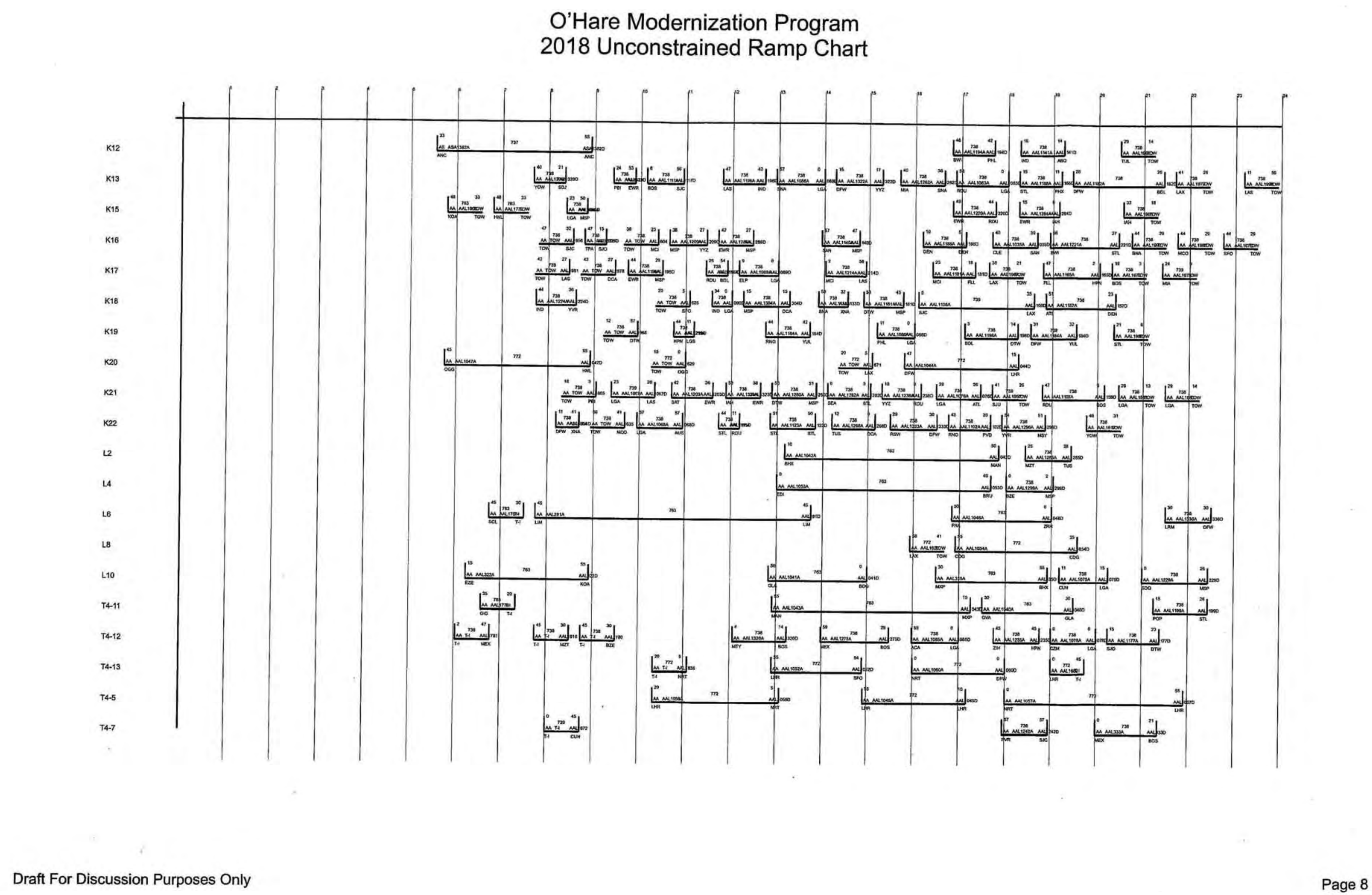
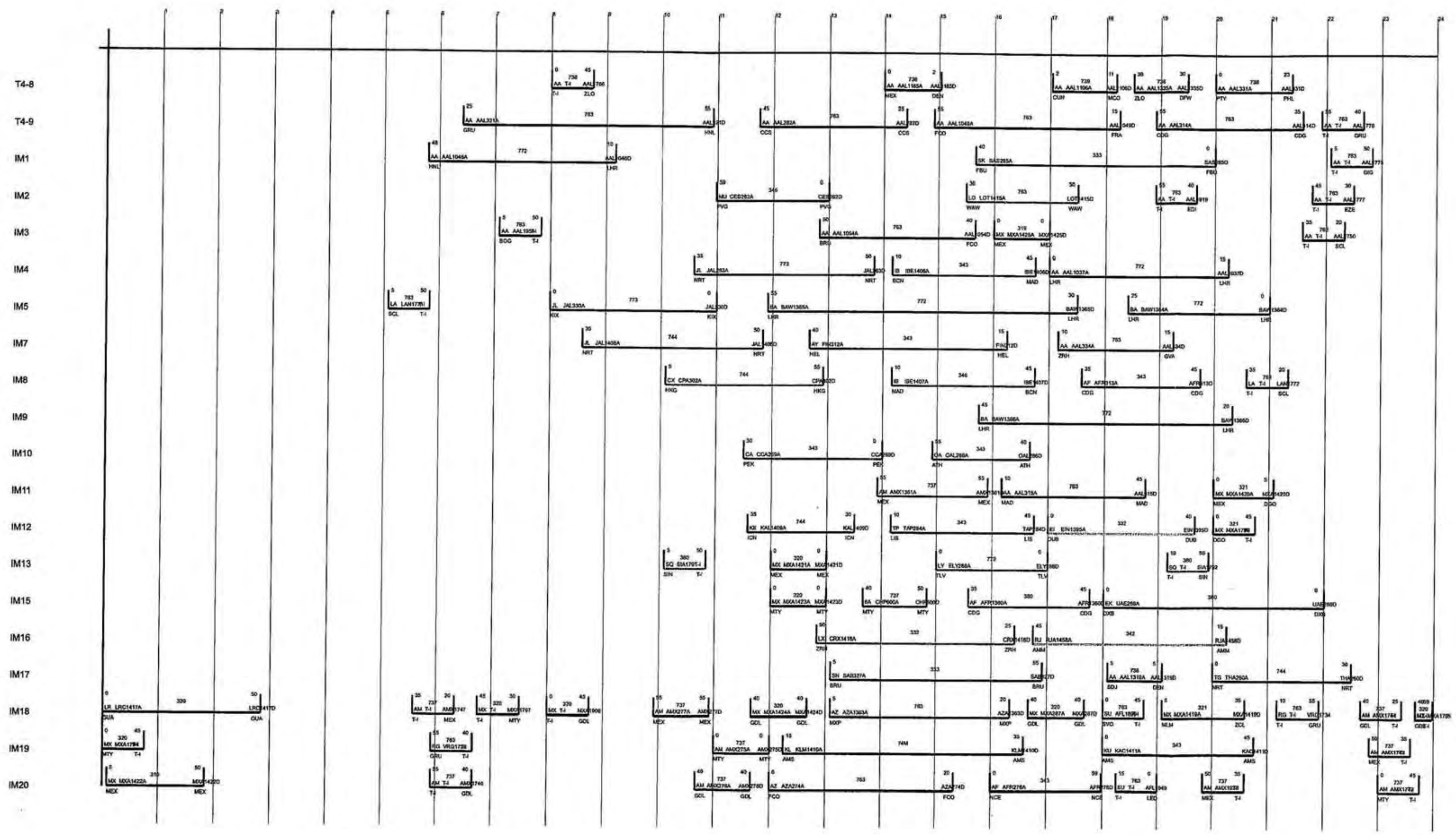
Page 7

Note: Gating Ramp Charts are included for presentation purposes only. Actual charts are plan sheet size.



Note: Gating Ramp Charts are included for presentation purposes only. Actual charts are plan sheet size.

O'Hare Modernization Program
2018 Unconstrained Ramp Chart



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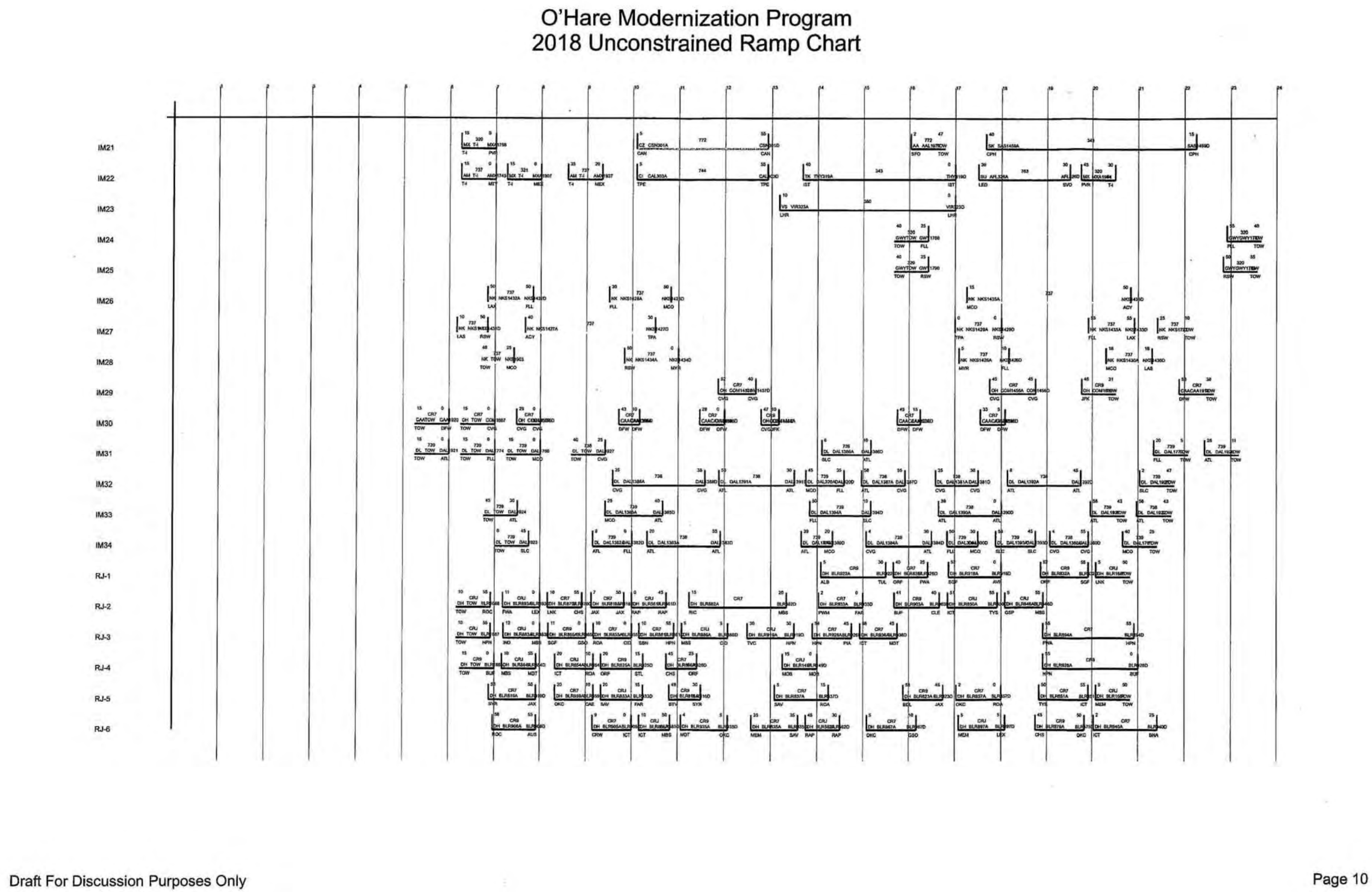
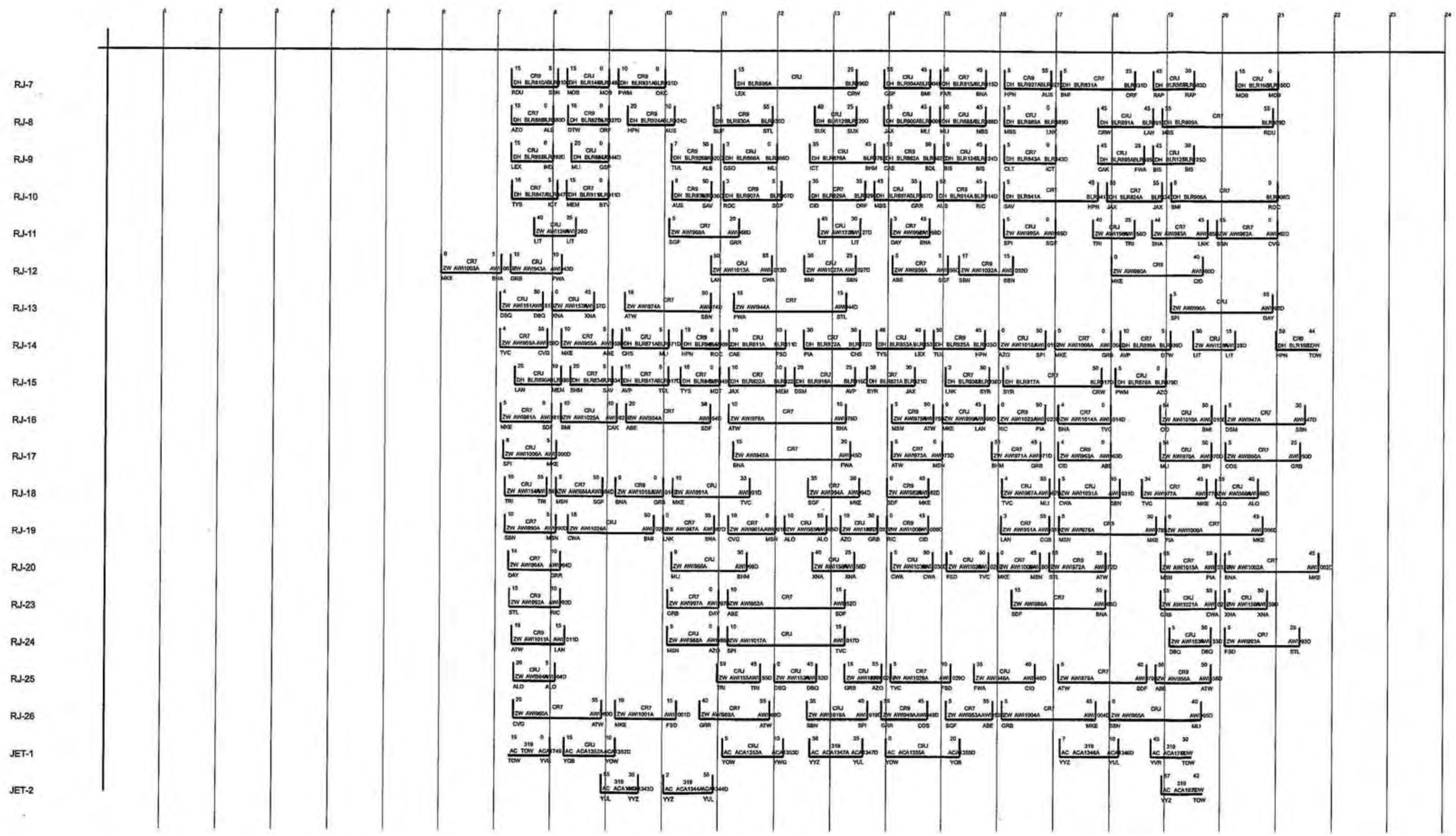
Page 9

Note: Gating Ramp Charts are included for presentation purposes only. Actual charts are plan sheet size.



Note: Gating Ramp Charts are included for presentation purposes only. Actual charts are plan sheet size.

O'Hare Modernization Program
2018 Unconstrained Ramp Chart



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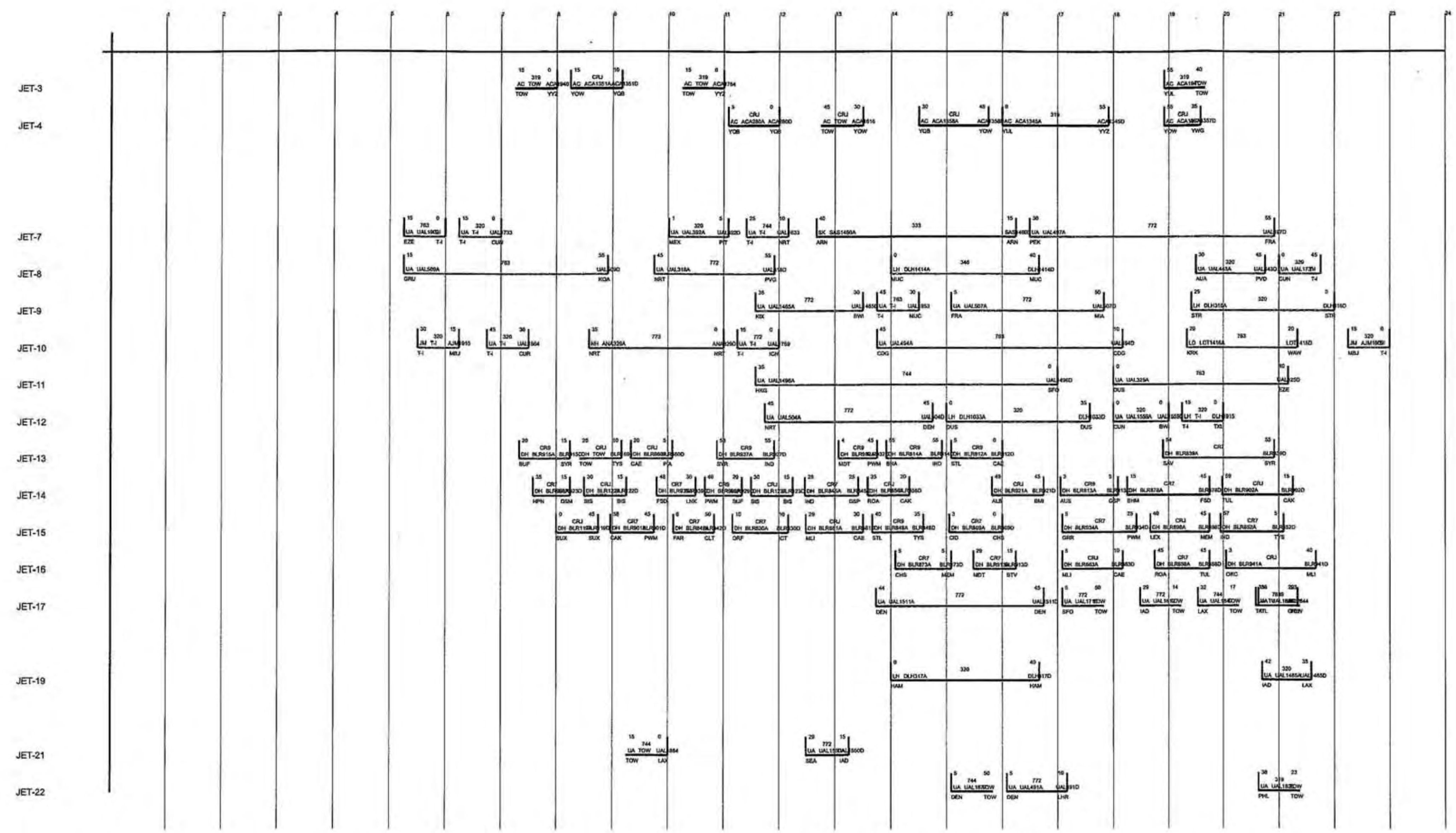
Page 11

Note: Gating Ramp Charts are included for presentation purposes only. Actual charts are plan sheet size.

O'Hare Modernization Program
2018 Unconstrained Ramp Chart



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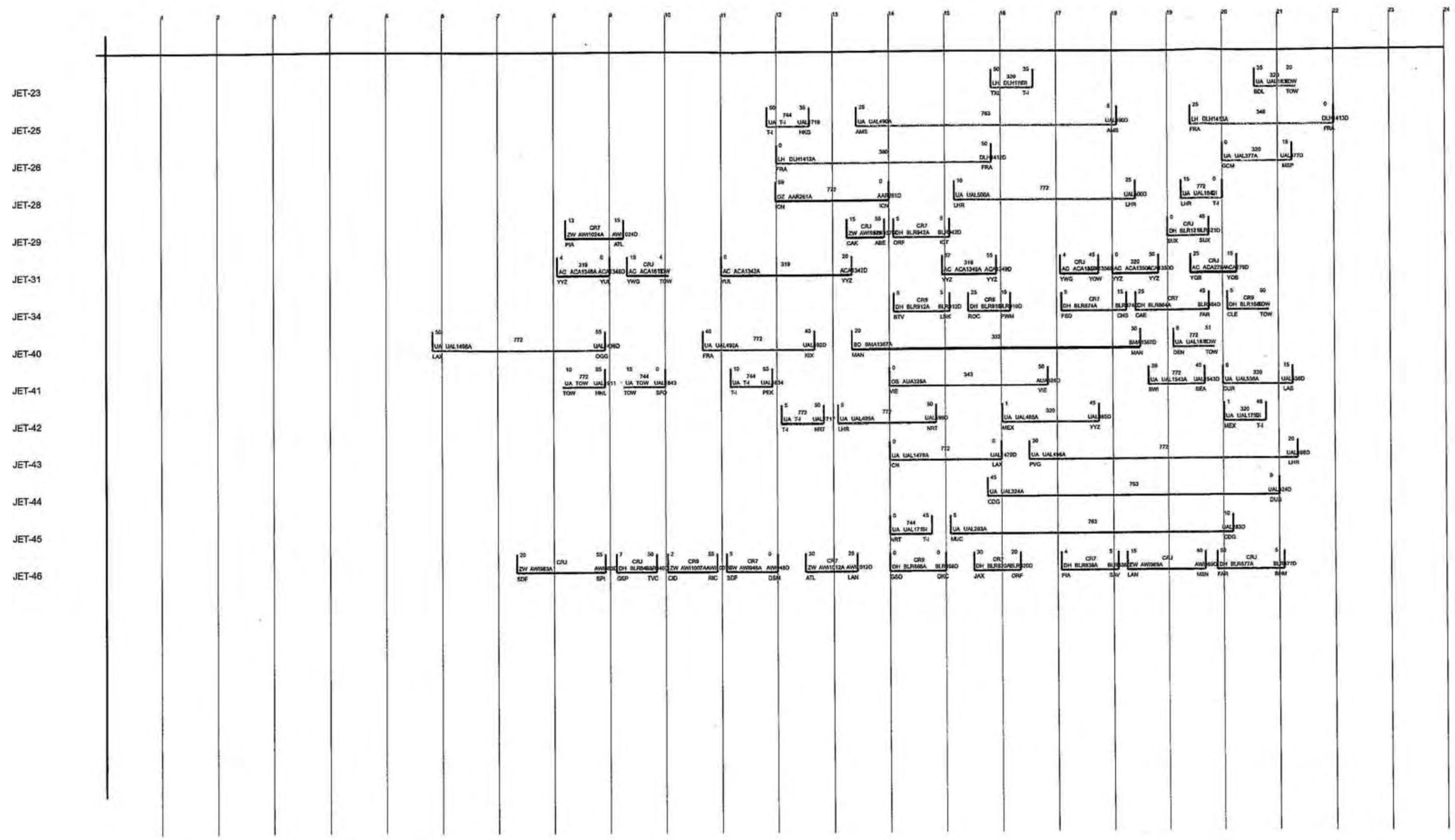
Page 12

Note: Gating Ramp Charts are included for presentation purposes only. Actual charts are plan sheet size.

O'Hare Modernization Program
2018 Unconstrained Ramp Chart



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Page 13

1.7 Runway End Definition Data

The following pages contain tables and associated exhibits identifying runway end points for the runways used in each 2018 With Project simulation.

2018 With Project - Experiment 33 (VFR-1 Parallel 9s)
Runway End Definition Data

The following table identifies the runway end points for the runways used in this TAAM experiment, including the latitude, longitude, elevation, and runway width. The associated graphic depicts the runway end points as defined in this table.

Point	TAAM Runway ID(s)	Description	End Points[1] Latitude N/S	Deg.	Min.	Sec.	Decimal	Longitude E/W	Deg.	Min.	Sec.	Decimal	End Point Elevation[2] (feet above MSL)	Runway Width (feet)
A	09L		N	42	0	9.8	42.0027222	W	87	55	38.5	-87.9273611	662.0	150
B	27R		N	42	0	10.1	42.0028056	W	87	53	59.0	-87.8997222	660.5	150
C	8, 9		N	41	59	17.5	41.9881944	W	87	55	55.9	-87.9321944	668.3	200
D	26		N	41	59	17.8	41.9882778	W	87	53	26.3	-87.8906389	652.4	200
E	09R		N	41	59	1.6	41.9837778	W	87	55	55.8	-87.9321667	668.2	150
F	27L		N	41	59	2.2	41.9839444	W	87	53	22.3	-87.8895278	650.3	150
G	10L		N	41	58	7.9	41.9688611	W	87	55	55.3	-87.9320278	665.8	150
H	28R		N	41	58	9.0	41.9691667	W	87	52	57.5	-87.8826389	651.3	150
I	10, 11, 13		N	41	57	56.2	41.9656111	W	87	55	55.1	-87.9319722	665.8	200
J	29, 31		N	41	57	57.0	41.9658333	W	87	53	31.8	-87.8921667	650.0	200
K	10R		N	41	57	25.7	41.9571389	W	87	55	41.8	-87.9282778	662.7	150
L	28L		N	41	57	26.2	41.9572778	W	87	54	2.3	-87.9006389	658.0	150
M	04L		N	41	58	53.6	41.9815556	W	87	54	52.4	-87.9145556	655.8	150
N	22R		N	41	59	51.1	41.9975278	W	87	53	49.2	-87.8970000	647.7	150
O	04R		N	41	57	12.0	41.9533333	W	87	53	59.2	-87.8997778	661.2	150
P	22L		N	41	58	11.9	41.9699722	W	87	52	48.6	-87.8801667	654.4	150
Q	27	LAHSO point	N	41	59	17.8	41.9882778	W	87	54	8.1	-87.9022500	656.8	200
R	28	LAHSO point	N	41	57	56.8	41.9657778	W	87	53	56.3	-87.8989722	652.7	200

Notes:

1. Runway end point coordinates were measured directly from the TAAM layouts used in the simulation.
2. Full length runway end point elevations were taken from airport layout plan (ALP) data sheets. Short runway end point elevations were interpolated based on runway lengths measured from the TAAM layout files and elevations from the ALP.

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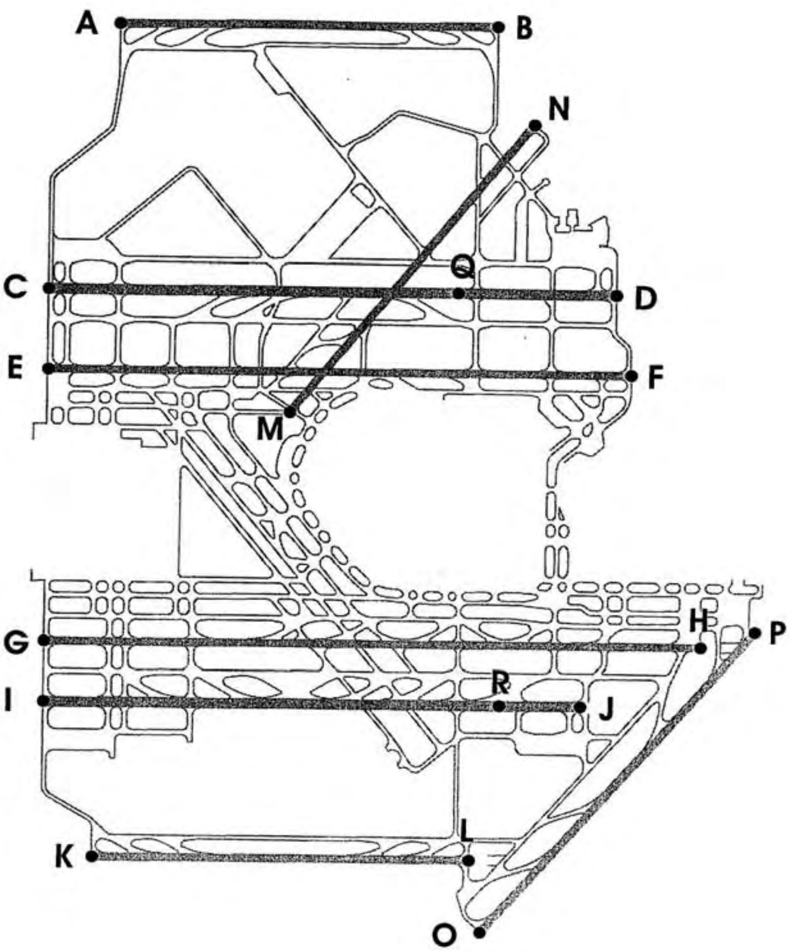

Sources: O'Hare Air Traffic Workgroup
Prepared by: Ricondo & Associates, Inc.

north

Runway Endpoints
2018 With Project Airfield - VFR-1 Parallel 9s

April 2004

2018 With Project - Experiment 51 (VFR-2 Parallel 9s)
Runway End Definition Data

The following table identifies the runway end points for the runways used in this TAAM experiment, including the latitude, longitude, elevation, and runway width. The associated graphic depicts the runway end points as defined in this table.

	TAAM Runway		End Points[1]										End Point Elevation[2] (feet above	Runway Width
			Latitude					Longitude						
Point	ID(s)	Description	N/S	Deg.	Min.	Sec.	Decimal	E/W	Deg.	Min.	Sec.	Decimal	MSL)	(feet)
A	09L		N	42	0	9.8	42.0027222	W	87	55	38.5	-87.9273611	662.0	150
B	27R		N	42	0	10.1	42.0028056	W	87	53	59.0	-87.8997222	660.5	150
C	8, 9		N	41	59	17.5	41.9881944	W	87	55	55.9	-87.9321944	668.3	200
D	26		N	41	59	17.8	41.9882778	W	87	53	26.3	-87.8906389	652.4	200
E	09R		N	41	59	1.6	41.9837778	W	87	55	55.8	-87.9321667	668.2	150
F	27L		N	41	59	2.2	41.9839444	W	87	53	22.3	-87.8895278	650.3	150
G	10L		N	41	58	7.9	41.9688611	W	87	55	55.3	-87.9320278	665.8	150
H	28R		N	41	58	9.0	41.9691667	W	87	52	57.5	-87.8826389	651.3	150
I	10, 13		N	41	57	56.2	41.9656111	W	87	55	55.1	-87.9319722	665.8	200
J	28, 31		N	41	57	57.0	41.9658333	W	87	53	31.8	-87.8921667	650.0	200
K	10R		N	41	57	25.7	41.9571389	W	87	55	41.8	-87.9282778	662.7	150
L	28L		N	41	57	26.2	41.9572778	W	87	54	2.3	-87.9006389	658.0	150
M	04L		N	41	58	53.6	41.9815556	W	87	54	52.4	-87.9145556	655.8	150
N	22R		N	41	59	51.1	41.9975278	W	87	53	49.2	-87.8970000	647.7	150
O	04R		N	41	57	12.0	41.9533333	W	87	53	59.2	-87.8997778	661.2	150
P	22L		N	41	58	11.9	41.9699722	W	87	52	48.6	-87.8801667	654.4	150
Q	27	LAHSO point	N	41	59	17.8	41.9882778	W	87	54	8.1	-87.9022500	656.8	200

Notes:

1. Runway end point coordinates were measured directly from the TAAM layouts used in the simulation.
2. Full length runway end point elevations were taken from airport layout plan (ALP) data sheets. Short runway end point elevations were interpolated based on runway lengths measured from the TAAM layout files and elevations from the ALP.

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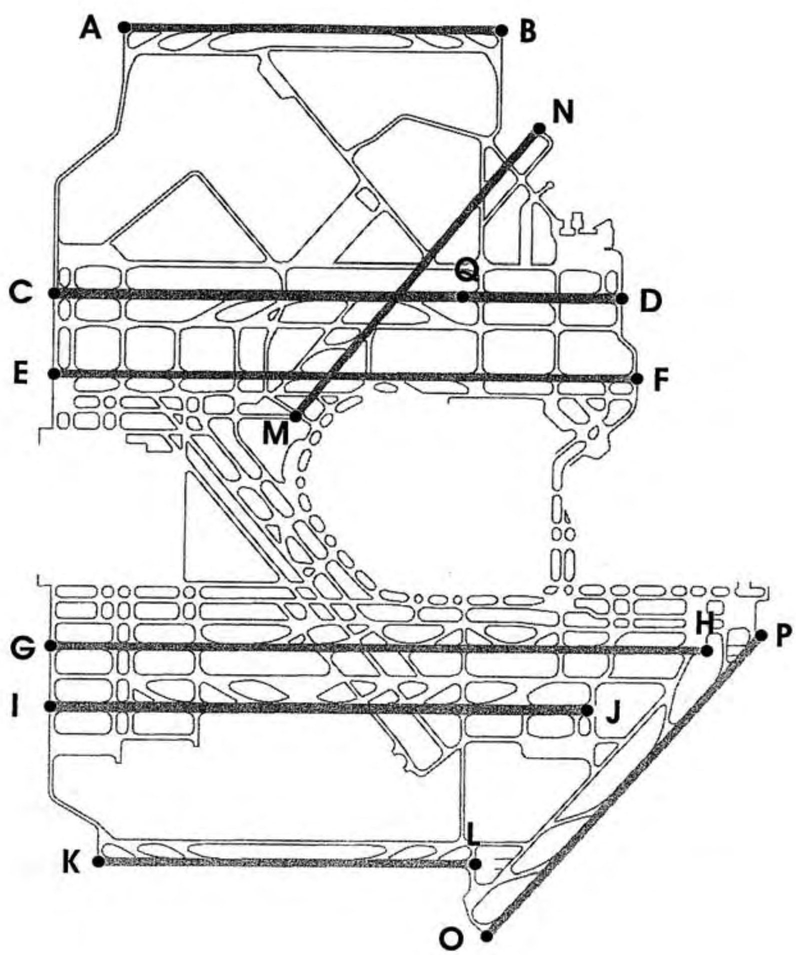
For Discussion Purposes Only

O'Hare International Airport



Sources: O'Hare Air Traffic Workgroup
Prepared by: Ricondo & Associates, Inc.

north

Runway Endpoints
2018 With Project Airfield - VFR-2 Parallel 9s

April 2004

2018 With Project - Experiment 52 (VFR-1 Parallel 27s)
Runway End Definition Data

The following table identifies the runway end points for the runways used in this TAAM experiment, including the latitude, longitude, elevation, and runway width. The associated graphic depicts the runway end points as defined in this table.

	TAAM Runway		End Points[1]										End Point Elevation[2]	Runway Width
			Latitude					Longitude					(feet above	
Point	ID(s)	Description	N/S	Deg.	Min.	Sec.	Decimal	E/W	Deg.	Min.	Sec.	Decimal	MSL)	(feet)
A	09L		N	42	0	9.8	42.0027222	W	87	55	38.5	-87.9273611	662.0	150
B	27R		N	42	0	10.1	42.0028056	W	87	53	59.0	-87.8997222	660.5	150
C	8		N	41	59	17.5	41.9881944	W	87	55	55.9	-87.9321944	668.3	200
D	26, 27		N	41	59	17.8	41.9882778	W	87	53	26.3	-87.8906389	652.4	200
E	09R		N	41	59	1.6	41.9837778	W	87	55	55.8	-87.9321667	668.2	150
F	27L		N	41	59	2.2	41.9839444	W	87	53	22.3	-87.8895278	650.3	150
G	10L		N	41	58	7.9	41.9688611	W	87	55	55.3	-87.9320278	665.8	150
H	28R		N	41	58	9.0	41.9691667	W	87	52	57.5	-87.8826389	651.3	150
I	11		N	41	57	56.2	41.9656111	W	87	55	55.1	-87.9319722	665.8	200
J	28, 29		N	41	57	57.0	41.9658333	W	87	53	31.8	-87.8921667	650.0	200
K	10R, 13R		N	41	57	25.7	41.9571389	W	87	55	41.8	-87.9282778	662.7	150
L	28L, 31L		N	41	57	26.2	41.9572778	W	87	54	2.3	-87.9006389	658.0	150
M	04L		N	41	58	53.6	41.9815556	W	87	54	52.4	-87.9145556	655.8	150
N	22R		N	41	59	51.1	41.9975278	W	87	53	49.2	-87.8970000	647.7	150
O	04R		N	41	57	12.0	41.9533333	W	87	53	59.2	-87.8997778	661.2	150
P	22L		N	41	58	11.9	41.9699722	W	87	52	48.6	-87.8801667	654.4	150
S	9	LAHSO point	N	41	59	17.5	41.9881944	W	87	55	38.9	-87.9274722	666.5	200
T	10	LAHSO point	N	41	57	56.3	41.9656389	W	87	55	39.8	-87.9277222	664.1	200

Notes:

1. Runway end point coordinates were measured directly from the TAAM layouts used in the simulation.
2. Full length runway end point elevations were taken from airport layout plan (ALP) data sheets. Short runway end point elevations were interpolated based on runway lengths measured from the TAAM layout files and elevations from the ALP.

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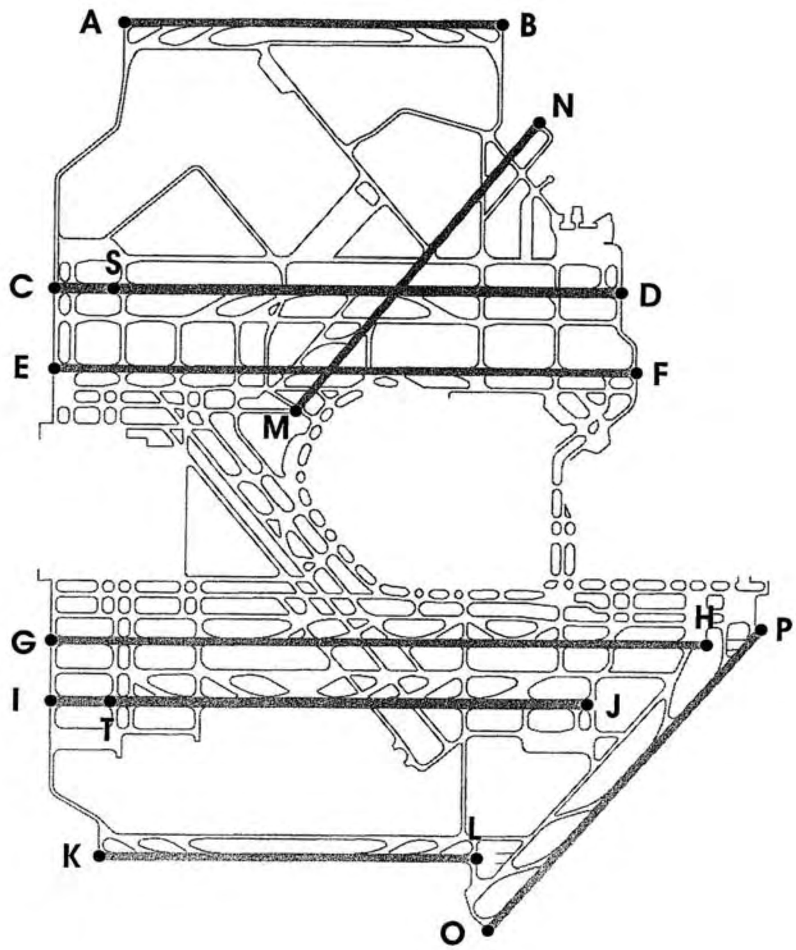
O'Hare International Airport



Sources: O'Hare Air Traffic Workgroup
Prepared by: Ricondo & Associates, Inc.

north

Runway Endpoints
2018 With Project Airfield - VFR-1 Parallel 27s

April 2004

2018 With Project - Experiment 53 (VFR-2 Parallel 27s)
Runway End Definition Data

The following table identifies the runway end points for the runways used in this TAAM experiment, including the latitude, longitude, elevation, and runway width. The associated graphic depicts the runway end points as defined in this table.

	TAAM Runway		End Points[1]										End Point Elevation[2]	Runway Width
			Latitude					Longitude						
Point	ID(s)	Description	N/S	Deg.	Min.	Sec.	Decimal	E/W	Deg.	Min.	Sec.	Decimal	(feet above MSL)	(feet)
A	09L		N	42	0	9.8	42.0027222	W	87	55	38.5	-87.9273611	662.0	150
B	27R		N	42	0	10.1	42.0028056	W	87	53	59.0	-87.8997222	660.5	150
C	8		N	41	59	17.5	41.9881944	W	87	55	55.9	-87.9321944	668.3	200
D	26, 27		N	41	59	17.8	41.9882778	W	87	53	26.3	-87.8906389	652.4	200
E	09R		N	41	59	1.6	41.9837778	W	87	55	55.8	-87.9321667	668.2	150
F	27L		N	41	59	2.2	41.9839444	W	87	53	22.3	-87.8895278	650.3	150
G	10L		N	41	58	7.9	41.9688611	W	87	55	55.3	-87.9320278	665.8	150
H	28R		N	41	58	9.0	41.9691667	W	87	52	57.5	-87.8826389	651.3	150
I	11, 13		N	41	57	56.2	41.9656111	W	87	55	55.1	-87.9319722	665.8	200
J	28, 29, 31		N	41	57	57.0	41.9658333	W	87	53	31.8	-87.8921667	650.0	200
K	10R		N	41	57	25.7	41.9571389	W	87	55	41.8	-87.9282778	662.7	150
L	28L		N	41	57	26.2	41.9572778	W	87	54	2.3	-87.9006389	658.0	150
M	04L		N	41	58	53.6	41.9815556	W	87	54	52.4	-87.9145556	655.8	150
N	22R		N	41	59	51.1	41.9975278	W	87	53	49.2	-87.8970000	647.7	150
O	04R		N	41	57	12.0	41.9533333	W	87	53	59.2	-87.8997778	661.2	150
P	22L		N	41	58	11.9	41.9699722	W	87	52	48.6	-87.8801667	654.4	150
S	9	LAHSO point	N	41	59	17.5	41.9881944	W	87	55	38.9	-87.9274722	666.5	200
T	10	LAHSO point	N	41	57	56.3	41.9656389	W	87	55	39.8	-87.9277222	664.1	200

Notes:

1. Runway end point coordinates were measured directly from the TAAM layouts used in the simulation.
2. Full length runway end point elevations were taken from airport layout plan (ALP) data sheets. Short runway end point elevations were interpolated based on runway lengths measured from the TAAM layout files and elevations from the ALP.

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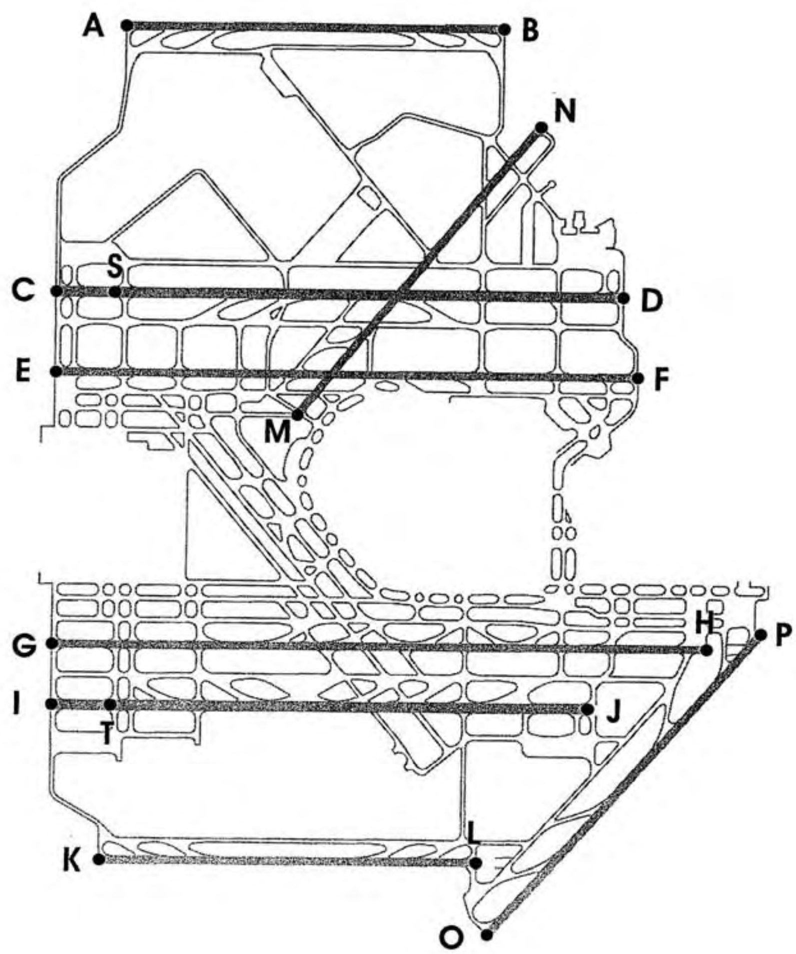

Sources: O'Hare Air Traffic Workgroup
Prepared by: Ricondo & Associates, Inc.

north

Runway Endpoints
2018 With Project Airfield - VFR-2 Parallel 27s

April 2004

2018 With Project - Experiment 54 (IFR Parallel 9s)
Runway End Definition Data

The following table identifies the runway end points for the runways used in this TAAM experiment, including the latitude, longitude, elevation, and runway width. The associated graphic depicts the runway end points as defined in this table.

Point	TAAM Runway ID(s)	Description	End Points[1] Latitude N/S	Deg.	Min.	Sec.	Decimal	Longitude E/W	Deg.	Min.	Sec.	Decimal	End Point Elevation[2] (feet above MSL)	Runway Width (feet)
A	09L		N	42	0	9.8	42.0027222	W	87	55	38.5	-87.9273611	662.0	150
B	27R		N	42	0	10.1	42.0028056	W	87	53	59.0	-87.8997222	660.5	150
C	9		N	41	59	17.5	41.9881944	W	87	55	55.9	-87.9321944	668.3	200
D	27		N	41	59	17.8	41.9882778	W	87	53	26.3	-87.8906389	652.4	200
E	09R		N	41	59	1.6	41.9837778	W	87	55	55.8	-87.9321667	668.2	150
F	27L		N	41	59	2.2	41.9839444	W	87	53	22.3	-87.8895278	650.3	150
G	10L		N	41	58	7.9	41.9688611	W	87	55	55.3	-87.9320278	665.8	150
H	28R		N	41	58	9.0	41.9691667	W	87	52	57.5	-87.8826389	651.3	150
I	10, 13		N	41	57	56.2	41.9656111	W	87	55	55.1	-87.9319722	665.8	200
J	28, 31		N	41	57	57.0	41.9658333	W	87	53	31.8	-87.8921667	650.0	200
K	10R		N	41	57	25.7	41.9571389	W	87	55	41.8	-87.9282778	662.7	150
L	28L		N	41	57	26.2	41.9572778	W	87	54	2.3	-87.9006389	658.0	150
M	04L		N	41	58	53.6	41.9815556	W	87	54	52.4	-87.9145556	655.8	150
N	22R		N	41	59	51.1	41.9975278	W	87	53	49.2	-87.8970000	647.7	150
O	04R		N	41	57	12.0	41.9533333	W	87	53	59.2	-87.8997778	661.2	150
P	22L		N	41	58	11.9	41.9699722	W	87	52	48.6	-87.8801667	654.4	150

Notes:

1. Runway end point coordinates were measured directly from the TAAM layouts used in the simulation.
2. Full length runway end point elevations were taken from airport layout plan (ALP) data sheets. Short runway end point elevations were interpolated based on runway lengths measured from the TAAM layout files and elevations from the ALP.

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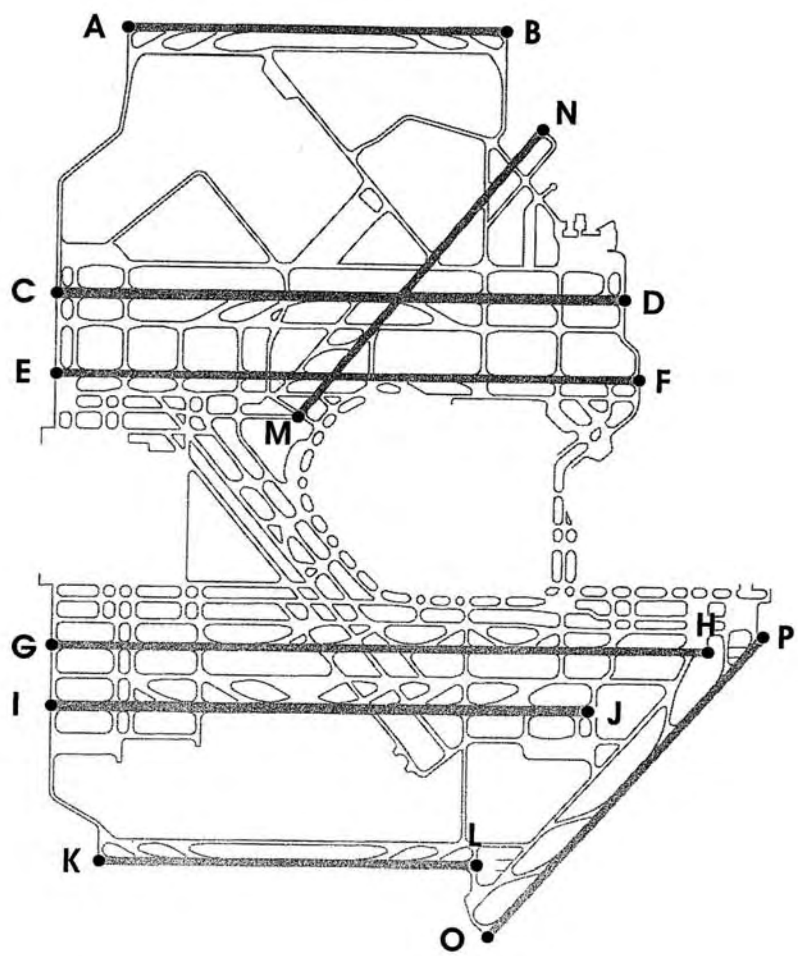

Sources: O'Hare Air Traffic Workgroup
Prepared by: Ricondo & Associates, Inc.

north

Runway Endpoints
2018 With Project Airfield - IFR Parallel 9s

April 2004

2018 With Project - Experiment 55 (IFR Parallel 27s)
Runway End Definition Data

The following table identifies the runway end points for the runways used in this TAAM experiment, including the latitude, longitude, elevation, and runway width. The associated graphic depicts the runway end points as defined in this table.

Point	TAAM Runway ID(s)	Description	End Points[1] Latitude N/S	Deg.	Min.	Sec.	Decimal	Longitude E/W	Deg.	Min.	Sec.	Decimal	End Point Elevation[2] (feet above MSL)	Runway Width (feet)
A	09L		N	42	0	9.8	42.0027222	W	87	55	38.5	-87.9273611	662.0	150
B	27R		N	42	0	10.1	42.0028056	W	87	53	59.0	-87.8997222	660.5	150
C	9		N	41	59	17.5	41.9881944	W	87	55	55.9	-87.9321944	668.3	200
D	27		N	41	59	17.8	41.9882778	W	87	53	26.3	-87.8906389	652.4	200
E	09R		N	41	59	1.6	41.9837778	W	87	55	55.8	-87.9321667	668.2	150
F	27L		N	41	59	2.2	41.9839444	W	87	53	22.3	-87.8895278	650.3	150
G	10L		N	41	58	7.9	41.9688611	W	87	55	55.3	-87.9320278	665.8	150
H	28R		N	41	58	9.0	41.9691667	W	87	52	57.5	-87.8826389	651.3	150
I	10, 13		N	41	57	56.2	41.9656111	W	87	55	55.1	-87.9319722	665.8	200
J	28, 31		N	41	57	57.0	41.9658333	W	87	53	31.8	-87.8921667	650.0	200
K	10R		N	41	57	25.7	41.9571389	W	87	55	41.8	-87.9282778	662.7	150
L	28L		N	41	57	26.2	41.9572778	W	87	54	2.3	-87.9006389	658.0	150
M	04L		N	41	58	53.6	41.9815556	W	87	54	52.4	-87.9145556	655.8	150
N	22R		N	41	59	51.1	41.9975278	W	87	53	49.2	-87.8970000	647.7	150
O	04R		N	41	57	12.0	41.9533333	W	87	53	59.2	-87.8997778	661.2	150
P	22L		N	41	58	11.9	41.9699722	W	87	52	48.6	-87.8801667	654.4	150

Notes:

1. Runway end point coordinates were measured directly from the TAAM layouts used in the simulation.
2. Full length runway end point elevations were taken from airport layout plan (ALP) data sheets. Short runway end point elevations were interpolated based on runway lengths measured from the TAAM layout files and elevations from the ALP.

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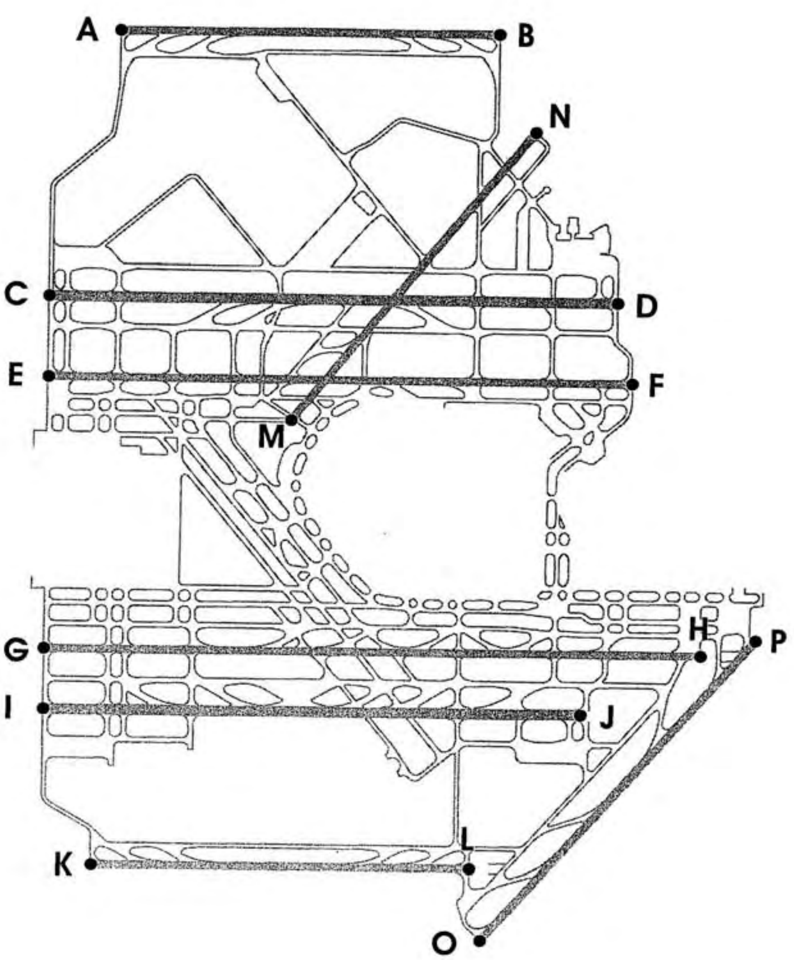


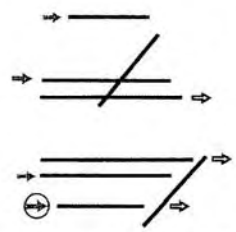
Sources: O'Hare Air Traffic Workgroup
Prepared by: Ricondo & Associates, Inc.

north

Runway Endpoints
2018 With Project Airfield - IFR Parallel 27s

April 2004

II. O'Hare International Airport 2018 With Project Operating Configurations



2.1 VFR-1 Parallel 9s

VFR-1 east flow as shown in **Exhibit II-1** would consist of arrivals on Runways 9L, 9C, 10C and, during periods of peak demand, Runway 10R. Runways 9R, 10L and 10R would be used for departures. New Large Aircraft (NLA) would use either Runways 9C or 10C for arrivals and departures. It is assumed that visual approach procedures would be applied to accommodate the use of the fourth arrival runway. **Exhibit II-2** depicts the primary arrival and departure flight paths that would be associated with this operating configuration.

2.1.1 Arrivals

Aircraft entering the TRACON airspace from the northeast (PAYTN) and in the tower en route structure from Milwaukee (MKE) and South Bend (SBN) would normally be assigned to Runway 9L. During periods of peak arrival demand, this northeast traffic could be off-loaded to either Runways 9C or 10R. Arrivals from the southeast (BEARZ) would normally be assigned to Runway 10C and could be off-loaded to either Runways 10R or 9L. Aircraft arriving from the northwest (TEDDY/KRENA) would normally be assigned to Runway 9C and could be off-loaded to Runway 9L. Arrivals from the southwest (KELSI) would normally be assigned to Runway 9C. During periods of peak arrival demand, these southwest arrivals could be off-loaded to Runway 10C or 10R from over BENKY/NEWRK.

Arriving aircraft would maintain an altitude of 7,000 feet MSL or above until entering the appropriate descent area. Upon entering the descent area, arrivals to the outer Runways 9L or 10R would descend to 4,000 feet and remain at that altitude until within 15.0 NM of the Airport. Arrivals to the inner Runways 9C or 10C would descend to 6,000 or 5,000 feet MSL respectively and remain at these altitudes until within 25.0 NM of the Airport. Arrivals to the center runways from the southwest would follow a high and wide approach path, proceeding directly to SIMMN, crossing a point west of ARR at 12,000 feet MSL. Approaching SIMMN, the high and wide traffic would turn onto the final approach for Runway 9C at 11,000 feet MSL.

2.1.2 Departures

Departure runways would be assigned consistent with the intended route of flight with an eye towards maintaining a balanced airfield operation. In general, departures to the northwest (ORDWA and ORDWB), north (BAE and PETTY), and northeast (ORDEA and ORDEB) would be assigned to Runway 9R. Departures to the east (ORDEC) and southeast (ORDSC, ORDSD and ORDSE) would be assigned to Runway 10L. Departures to the south (ORDSA and ORDSB) and southwest (ORDWC and ORDWD) would be assigned to Runway 10R. International departures to Pacific Rim and South American destinations would be assigned to full length of Runway 10L, while NLA departures would be assigned Runway 9C if routed to the northwest, north or east. If routed to the southeast through southwest, they would be assigned Runway 10C.

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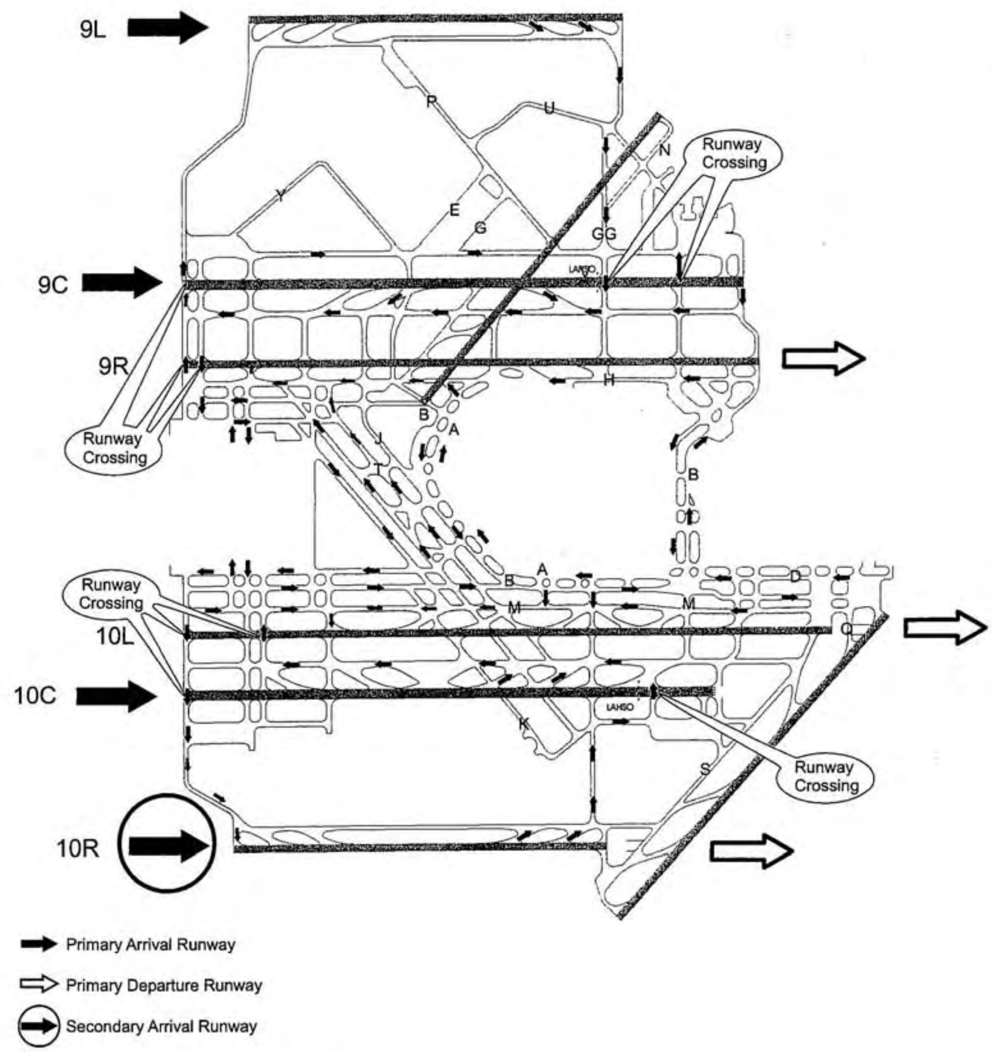
O'Hare International Airport



Sources: O'Hare Air Traffic Workgroup
Prepared by: Ricondo & Associates, Inc.

Exhibit II-1

north

Arrivals and Departures

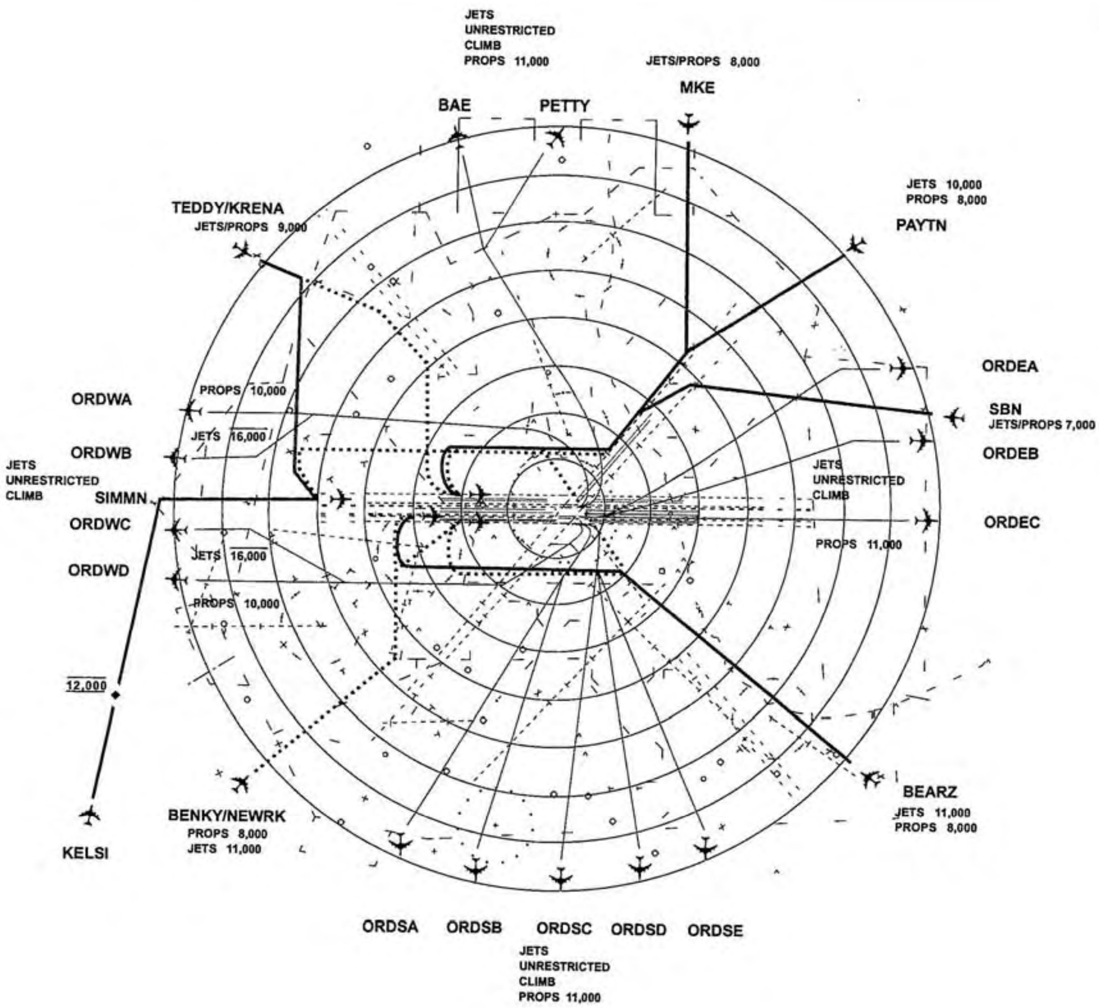
Departure Queue

Taxiway Routes
2018 With Project Airfield - VFR-1 Parallel 9s

April 2004

Preliminary Draft
For Discussion Purposes Only

O'Hare International Airport



Note: Range Rings are 5 nautical miles apart.

Sources: O'Hare Air Traffic Workgroup
Prepared by: Ricondo & Associates, Inc.

Exhibit II-2

North

- Primary Arrival Route
- Secondary Arrival Route
- Departure Route

Airspace Routes
2018 With Project - VFR-1 Parallel 9s

April 2004

The following runway use strategies would be used to balance airfield demand during periods of peak departures over one or more sets of departures fixes. During peak eastbound traffic periods, traffic over all the south fixes could be shifted to Runway 10R. Conversely, during periods of peak westbound demand, traffic over all the east fixes could be shifted to Runway 10L.

Departing aircraft would initially be assigned an altitude of 5,000 feet MSL and a departure course that would avoid conflicting with the arrival descent area. Once clear of the arriving aircraft, departures would be climbed as indicated in Exhibit II-2.

2.1.3 Airfield Circulation

The primary ground movements associated with this configuration are illustrated on Exhibit II-1. The black arrows depict directional flow on the associated taxiway. Red arrows indicate departure queuing areas.

To accommodate the flow of traffic in and out of the terminals, aircraft taxi clockwise on Taxiway A, counterclockwise on Taxiway B and west on Taxiway H. To accommodate the flow of traffic to and from the North and South Airfields, four parallel southeast/northwest diagonal taxiways located between the Main Terminal core and the West Terminal are provided. The two most eastern taxiways are existing Taxiways T and J/B, while the two western taxiways are new.

2.1.3.1 Arrivals

Aircraft landing Runway 10C destined for the Main Terminals exit north from the runway, taxi west on the parallel taxiway before crossing Runway 10L west of the Runway 10L intersection departure point. Aircraft destined for the North Airfield Ramp taxi northwest on the diagonal taxiway just west of Taxiway T and cross Runway 9R at the west end of runway behind the Runway 9R departure point. Aircraft continue their taxi north and cross Runway 9C at the west end of the runway then proceed east on the parallel taxiway to the ramp. Aircraft landing Runway 10R taxi north on Taxiway F, jog east and cross Runway 10C beyond the Runway 10C LAHSO hold point. Aircraft continue to taxi west on the parallel taxiway, cross Runway 10L west of the Runway 10L departure point. Aircraft destined for the North Airfield Ramp, transition to the north airfield by taxiing northeast on either Taxiway T or the taxiway just west of T then continue the taxi route as previously described for landings on Runway 10C. Aircraft landing Runway 9C destined for the Main Terminals exit south and taxi west on the parallel taxiway, cross Runway 9R at the west end of the runway behind the Runway 9R departure point. Aircraft transition to the South Airfield by taxiing southeast on the western most diagonal taxiway. Aircraft landing Runway 9C destined for the North Airfield Ramp exit to the north. Aircraft landing Runway 9L destined for Main Terminals exit south at the east end of the runway, taxi south on Taxiway GG, cross Runway 9C east of the Runway 9C LAHSO hold point. Aircraft continue taxi west on the parallel taxiway then cross Runway 9R west of the Runway 9R departure point. Aircraft transition and head southeast to the South Airfield via the most western diagonal taxiway.

2.1.3.2 Departures

Aircraft departing Runway 10L transition to the runway from the parallel taxiway located on the north side of the runway. Aircraft hold on parallel Taxiway M east of the intersection departure used to facilitate "inactive" runway crossings. Aircraft originating from the North Airfield cross Runway 9C east of the Runway 9C LAHSO hold point, taxi west on the parallel taxiway and cross Runway 9R west of the Runway 9R intersection departure. Aircraft continue southeast on the western most diagonal taxiway to the South Airfield. Aircraft departing Runway 10R originating from the Main Terminals transition to and cross Runway 10L at the west end of the runway, west of the Runway 10L intersection departure. Aircraft then cross Runway 10C at the approach end in route to Runway 10R. Aircraft originating from the North Airfield cross Runway 9C east of the Runway 9C LAHSO hold point, taxi west on the parallel taxiway and cross Runway 9R west of the Runway 9R intersection departure. Aircraft continue southeast on the western most diagonal taxiway to the South Airfield and continue taxi as previously described.

Aircraft departing Runway 9R originating from the South Airfield transition to and taxi northeast on either Taxiway T, the taxiway just west of Taxiway T, or Taxiway A to queue on Taxiway H east of the intersection departure. Aircraft originating from the North Airfield cross Runway 9C east of the Runway 9C LAHSO hold point, taxi west on the parallel taxiway and queue for a Runway 9R intersection departure on the north side of the runway.

2.1.3.3 Taxi Speeds

In TAAM, taxi speeds for simulation are typically defined as follows; 7 knots on aprons and taxilanes and 15 knots on taxiways.

2.1.4 Primary and Secondary Runway Assignments

2.1.4.1 Arrivals

Table II-1

Arrival Fix	Preferences		
	1st	2nd	3rd
PAYTN	9L	9C	10R
TEDDY/KRENA	9C	9L	
BEARZ	10C	10R	9L
KELSI	9C		
BENKY/NEWRK (KELSI Offload)		10C	10R

Source: ORD Air Traffic Workgroup
Prepared By: Ricondo & Associates, Inc.

2.1.4.2 Departures

Table II-2

	Departure Fix	Preferences		
		1st	2nd	3rd
North	BAE	9R		
	PETTY	9R		
East	ORDEA	9R	10L	
	ORDEB	9R	10L	
	ORDEC	10L	9R	
South	ORDSA	10R	10L	
	ORDSB	10R	10L	
	ORDSC	10L	10R	
	ORDSD	10L	10R	
	ORDSE	10L	10R	
West	ORDWA	9R		
	ORDWB	9R		
	ORDWC	10R		
	ORDWD	10R		

Notes:
1. Asian Markets Departures: Runway 10L (full length)
2. European Markets Departures: Runway 9R

Source: ORD Air Traffic Workgroup
Prepared By: Ricondo & Associates, Inc.

2.1.5 Runway Dependencies

2.1.5.1 Arrival-Arrival

1. Arriving aircraft assigned to Runway 10R are generally spaced at an interval of 4.5 to 5.0 NM to accommodate aircraft departing on the same runway.
2. Arriving aircraft offloaded from the southwest fix (KELSI) assigned to Runway 10C would be spaced at an interval of 15 NM to accommodate aircraft departing to the west. This spacing was simulated by adjusting the hourly flow rate to Runway 10C from KELSI.

2.1.5.2 Arrival-Departure

1. Runway 10R departures must be airborne before Runway 10R arrivals cross the runway threshold.

2.1.5.3 Departure-Departure

1. NLA departures on Runway 9C and Runway 9R departures are fully dependent.

2.1.6 LAHSO Assumptions

Table II-3

LAHSO Runway	Assumed LAHSO distance	Reason for LAHSO	Aircrafts Using the Procedure	Conditions under which LAHSO is available
9C	8,200 ft.	Allow for Runway 9L arrivals to independently cross in front of the arrivals.	No B747 or DC86 aircraft, General Aviation or International Arrivals.	VFR, dry with no tail wind
10C	9,100 ft.	Allow for Runway 10R arrivals to independently cross in front of the arrivals.	No B747 or DC86 aircraft, General Aviation or International Arrivals.	VFR, dry with no tail wind

Source: ORD Air Traffic Workgroup
Prepared By: Ricondo & Associates, Inc.

As indicated by O'Hare Order 7110.118, Land and Hold Short Operations (LAHSO), the following table outlines the common aircraft groups performing LAHSO operations at O'Hare International Airport.

Table II-4 – ORD LAHSO – Common Air Carrier Aircraft Groups

Group 1-6 (5,000')	Group 7 (6,000')	Group 8-9 (8,000')	Unable LAHSO
27R H/S 22R arrivals	22R H/S 27R arrivals 22R H/S 9L departures 9L H/S 32R departures	9R H/S Taxiway Sierra 14R H/S 9R arrivals	
All ATR's SF34 ATP	A306 A310 A319, A320 B721, B722 All B737 models except: B734, B737, B739 B752 B190 All BA46's All CARJ's D328 E120 E135, E145	B72Q B753 All B707's All B767's All B777's All DC8's DC10 and MD11 All MD80's MD90 L101	Foreign Carriers All Military All General Aviation All B747's A321 DC86

Source: ORD Order 7110.118
Prepared By: Ricondo & Associates, Inc.

2.1.7 Intersection Departure Procedures

Table II-5

Departure Runway	Intersection Used (Take-Off Run Available)	Reason	Aircrafts Using the Procedure	Conditions required for intersection departures
9R	X1 (10,200 ft)	Arrivals on Runways 9L and 9C can independently cross behind the departures.	All except Asian-Pacific Rim Departures	No restrictions.
10L	Y1 (10,600 ft)	Arrivals on Runways 10C and 10R can independently cross behind the departures. Also, Runway 10R departures can taxi behind the departures.	All except Asian-Pacific Rim Departures	No restrictions.

Source: ORD Air Traffic Workgroup
Prepared By: Ricondo & Associates, Inc.

2.1.8 Noise Abatement Procedures

Noise abatement procedures are established for the Airport. When feasible they are applied between 10:00 p.m. and 7:00 a.m. However, due to traffic demand it is normal for the use of noise preferential runways to end between 6:00 a.m. and 6:30 a.m. Conversely, in the evening noise abatement procedures are not initiated until the operational demand is sufficiently reduced to accommodate the traffic safely on the preferential noise abatement runways. Based on weather conditions, the operating configuration, and demand, noise abatement procedures vary from one night to the next.

The following defines the timeframe simulation rules are established for this experiment as they are related to the use of noise abatement runways and procedures.

2.1.8.1 Arrivals

When weather conditions favor the use of VFR-1 Parallel 9s, the noise abatement runway for arrivals would be Runway 10L. In this simulation, noise abatement rules do not apply between the hours of 6:15 a.m. and 9:40 p.m.

2.1.8.2 Departures

The noise abatement departure runway for VFR-1 Parallel 9s would be Runway 10L. In this configuration, departures on Runway 10L must fly runway heading until vacating 3,000 feet MSL before beginning a turn. Refer to the SID for a graphical depiction.

In this simulation, noise abatement rules do not apply between the hours of 6:00 a.m. and 9:40 p.m.

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **1**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Group "09RDepJets"
 */
group 09RDepJets = {
   "ORDWB2",
   "ORDWA2",
   "BAE",
   "PETTY",
   "ORDEB",
   "ORDEA" };

/*
 * Group "10LDepJets"
 */
group 10LDepJets = {
   "ORDEC",
   "ORDSC",
   "ORDSD",
   "ORDSE" };

/*
 * Group "10RDepJet"
 */
group 10RDepJet = {
   "ORDWC2",
   "ORDWD2",
   "ORDSA",
   "ORDSB" };

/*
 * Group "EurAsian"
 */
group EurAsian = {
   "E*",
   "L*",
   "B*",
   "P*",
   "V*",
   "R*",
   "Z*",
   "S*",
   "A*",
   "MKJS",
   "MMGL",
   "MMMM",
   "MMMX",
   "MMPR",
   "MROC" };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq 2
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Group "WstCst"
 */
group WstCst = {
   "KLAX",
   "KSFO",
   "KSAN" };

/*
 * Group "BigII"
 */
group BigII = {
   "74*",
   "B74*",
   "76*",
   "B76*",
   "30*",
   "A30*",
   "33*",
   "A33*",
   "34*",
   "A34*",
   "38*" };

/*
 * Group "long_haul"
 */
group long_haul = {
   "V*",
   "R*",
   "Z*",
   "S*",
   "A*",
   "PHNL",
   "W*",
   "O*",
   "U*" };

/*
 * Group "747380"
 */
group 747380 = {
   "74*",
   "38*",
   "77*",
   "34*",
   "ABF" };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq 3
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Group "NorthEastArrFixes"
 */
group NorthEastArrFixes = {
   "PAYTN",
   "MKE150018",
   "MATRU",
   "NEPTS",
   "MINCE" };

/*
 * Group "EAEB"
 */
group EAEB = {
   "ORDEA",
   "ORDEB" };

/*
 * Group "SASB"
 */
group SASB = {
   "ORDSA",
   "ORDSB" };

/*
 * Group "SCSDSE"
 */
group SCSDSE = {
   "ORDSD",
   "ORDSC",
   "ORDSE" };

/*
 * Group "BigGuys"
 */
group BigGuys = {
   "74*",
   "77*",
   "A33*",
   "34*",
   "A34*",
   "33*",
   "M1F",
   "76*",
   "B76*" };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **4**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Group "WCWD"
 */
group WCWD = {
   "ORDWC2",
   "ORDWD2" };

/*
 * Group "STAR380"
 */
group STAR380 = {
   "SIA*",
   "DLH*",
   "UAE*" };

/*
 * Group "NONSTAR380"
 */
group NONSTAR380 = {
   "AFR*",
   "VIR*",
   "FDX*" };

/*
 * Group "NON_LAHSO_ACFT"
 */
group NON_LAHSO_ACFT = {
   "74*",
   "B74*",
   "38*",
   "A38*",
   "DC86" };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **5**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Group "INT_AIRLINE"
 */
group INT_AIRLINE = {
    "AAR*",
    "ACA*",
    "AFL*",
    "AFR*",
    "AJM*",
    "AMX*",
    "ANA*",
    "AUA*",
    "AZA*",
    "BAW*",
    "BMA*",
    "CAL*",
    "CES*",
    "CHP*",
    "CPA*",
    "CRX*",
    "CSN*",
    "DLH*",
    "EIN*",
    "ELY*",
    "FIN*",
    "GEC*",
    "IBE*",
    "JAL*",
    "KAC*",
    "KAL*",
    "KLM*",
    "LAN*",
    "LOT*",
    "LRC*",
    "MXA*",
    "OAL*",
    "RJA*",
    "SAB*",
    "SAS*",
    "SIA*",
    "TAP*",
    "THA*",
    "THY*",
    "UAE*",
    "VIR*",
    "VRG*" };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **6**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "MidnightArr"
 * Active
 */
if (aircraft . arriving is True
AND aircraft . time >= 0
AND aircraft . time <= 615
AND aircraft . type is_not "38*"
) then do NOT use runway { 09L,09,09R,10,10R,11,08,13 };

/*
 * Rule "MidnightDep1"
 * Active
 */
if (aircraft . departing is True
AND aircraft . time >= 1
AND aircraft . time < 600
AND aircraft . type is_not "38*"
) then do NOT use runway { 09L,09,09R,10,10R,11,08,13 };

/*
 * Rule "MidnightDep2"
 * Active
 */
if (aircraft . name is "*"
AND aircraft . time >= 2140
AND aircraft . time <= 2359
AND aircraft . type is_not "38*"
) then do NOT use runway { 09L,09,09R,10,10R,11,08,13 };

/*
 * Rule "10LArr"
 * Active
 */
if (aircraft . arriving is True
AND aircraft . time >= 615
AND aircraft . time < 2140
) then do NOT use runway { 10L };

/*
 * Rule "10LDepRchknochg"
 * Active
 */
if (aircraft . departing is True
AND aircraft . curr_taxiway is "twy_cl1135"
) then DO use runway { 10L };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **7**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "10L_MidnightDepEntry"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . time >= 0
AND aircraft . time < 600
) then DO use rw entry/exit { twy_cl554 };

/*
 * Rule "380_Arr"
 * Active
 */
if (aircraft . arriving is True
AND aircraft . type is "38*"
) then do NOT use runway { 09L,09,09R,10L,10,10R,13 };

/*
 * Rule "08_380only"
 * Active
 */
if (aircraft . departing is True
AND aircraft . type is_not "38*"
) then do NOT use runway { 08,11 };

/*
 * Rule "11_380Dep"
 * Active
 */
if (aircraft . name in NONSTAR380
AND aircraft . type is "38*"
) then DO use runway { 11 };

/*
 * Rule "HVY_NOLAHSO"
 * Active
 */
if (aircraft . arriving is True
AND aircraft . type in NON_LAHSO_ACFT
) then do NOT use runway { 09,10 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **8**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "INTARL_NOLAHSO"
 * Active
 */
if (aircraft . arriving is True
AND aircraft . name in INT_AIRLINE
) then do NOT use runway { 09,10 };

/*
 * Rule "GA_NOLAHSO"
 * Active
 */
if (aircraft . arriving is True
AND aircraft . market_seg is 4
) then do NOT use runway { 10,09 };

/*
 * Rule "newrk_limitoffld"
 * Active
 */
if (aircraft . approach_fix is "NEWRK"
AND runway . name is "13"
AND runway . arr_queue_length >= 7
) then do NOT use runway { 13 };

/*
 * Rule "NEWRK_Shift1"
 * Active
 */
if (aircraft . approach_fix is "NEWRK"
AND aircraft . time >= 1205
AND aircraft . time < 1233
AND aircraft . type is_not "38*"
AND runway . name is "09"
AND runway . arr_queue_length >= 16
) then DO use runway { 13 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq 9
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "newrk_Shift2"
 * Active
 */
if (aircraft . approach_fix is "NEWRK"
AND aircraft . time >= 1535
AND aircraft . time < 1600
AND aircraft . type is_not "38*"
AND runway . name is "09"
AND runway . arr_queue_length >= 16
) then DO use runway { 13 };

/*
 * Rule "NEWRKShift1c"
 * Active
 */
if (aircraft . approach_fix is "NEWRK"
AND aircraft . time >= 1740
AND aircraft . time < 1810
AND aircraft . type is_not "38*"
AND runway . name is "09"
AND runway . arr_queue_length >= 16
) then DO use runway { 13 };

/*
 * Rule "NEWRK_Shift1a"
 * Active
 */
if (aircraft . approach_fix is "NEWRK"
AND aircraft . time >= 1950
AND aircraft . time < 2030
AND runway . name is "09"
AND runway . arr_queue_length >= 16
) then DO use runway { 13 };

/*
 * Rule "NEWRK1"
 * Active
 */
if (aircraft . approach_fix is "NEWRK"
AND aircraft . name not_in INT_AIRLINE
AND aircraft . type not_in NON_LAHSO_ACFT
AND aircraft . market_seg is_not 4
AND runway . name is "09"
AND runway . arr_queue_length <= 35
) then DO use runway { 09 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **10**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "NEWRK2"
 * Active
 */
if (aircraft . approach_fix is "NEWRK"
AND aircraft . name in INT_AIRLINE
AND runway . name is "09"
AND runway . arr_queue_length <= 35
AND aircraft . time >= 530
AND aircraft . time <= 2359
) then DO use runway { 08 };

/*
 * Rule "NEWRK3"
 * Active
 */
if (aircraft . arriving is True
AND aircraft . approach_fix is "NEWRK"
AND runway . name is "09"
AND runway . arr_queue_length <= 35
AND aircraft . type in NON_LAHSO_ACFT
AND aircraft . time >= 530
AND aircraft . time < 2359
) then DO use runway { 08 };

/*
 * Rule "NEWRk3AB"
 * Active
 */
if (aircraft . approach_fix is "NEWRK"
AND aircraft . market_seg is 4
AND runway . name is "09"
AND runway . arr_queue_length <= 35
AND aircraft . time >= 530
AND aircraft . time < 2359
) then DO use runway { 08 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **11**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "NEWRK3a"
 * Active
 */
if (aircraft . arriving is True
AND aircraft . approach_fix is "NEWRK"
AND runway . name is "10"
AND runway . arr_queue_length <= 45
AND aircraft . name not_in INT_AIRLINE
AND aircraft . type not_in NON_LAHSO_ACFT
AND aircraft . market_seg is_not 4
) then DO use runway { 13 };

/*
 * Rule "Newrk3b"
 * Active
 */
if (aircraft . approach_fix is "NEWRK"
AND runway . name is "10"
AND runway . arr_queue_length <= 45
AND aircraft . name in INT_AIRLINE
) then DO use runway { 13 };

/*
 * Rule "Newrk3c"
 * Active
 */
if (aircraft . approach_fix is "NEWRK"
AND runway . name is "10"
AND runway . arr_queue_length <= 45
AND aircraft . type in NON_LAHSO_ACFT
) then DO use runway { 13 };

/*
 * Rule "NEWRK3D"
 * Active
 */
if (aircraft . approach_fix is "NEWRK"
AND aircraft . market_seg is 4
AND runway . name is "10"
AND runway . arr_queue_length <= 45
) then DO use runway { 13 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **12**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "NEWRK4"
 * Active
 */
if (aircraft . approach_fix is "NEWRK"
AND runway . name is "10R"
AND runway . arr_queue_length < 35
) then DO use runway { 10R };

/*
 * Rule "Krena_Shift1"
 * Active
 */
if (aircraft . approach_fix is "KRENA"
AND aircraft . time >= 750
AND aircraft . time < 830
) then DO use runway { 09L };

/*
 * Rule "Krena_Shift2"
 * Active
 */
if (aircraft . approach_fix is "KRENA"
AND aircraft . time >= 935
AND aircraft . time < 1030
) then DO use runway { 09L };

/*
 * Rule "Krena_Shift3"
 * Active
 */
if (aircraft . approach_fix is "KRENA"
AND aircraft . time >= 1155
AND aircraft . time < 1245
) then DO use runway { 09L };

/*
 * Rule "Krena_Shift4"
 * Active
 */
if (aircraft . approach_fix is "KRENA"
AND aircraft . time >= 1435
AND aircraft . time < 1515
) then DO use runway { 09L };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **13**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "Krena_Shift5"
 * Active
 */
if (aircraft . approach_fix is "KRENA"
AND aircraft . time >= 1740
AND aircraft . time < 1825
) then DO use runway { 09L };

/*
 * Rule "Krena_Shift6"
 * Active
 */
if (aircraft . approach_fix is "KRENA"
AND aircraft . time >= 1935
AND aircraft . time < 2015
) then DO use runway { 09L };

/*
 * Rule "KRENA0"
 * Active
 */
if (aircraft . approach_fix is "KRENA"
AND runway . name is "09L"
AND runway . arr_queue_length < 10
) then DO use runway { 09L };

/*
 * Rule "KRENA1"
 * Active
 */
if (aircraft . approach_fix is "KRENA"
AND runway . name is "09"
AND runway . arr_queue_length <= 15
AND aircraft . time > 530
AND aircraft . time <= 2359
AND aircraft . type not_in NON_LAHSO_ACFT
AND aircraft . name not_in INT_AIRLINE
AND aircraft . market_seg is_not 4
) then DO use runway { 09 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **14**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "KRENA2"
 * Active
 */
if (aircraft . approach_fix is "KRENA"
AND aircraft . time > 530
AND aircraft . type in NON_LAHSO_ACFT
AND runway . name is "09"
AND runway . arr_queue_length <= 15
AND aircraft . time <= 2359
) then DO use runway { 08 };

/*
 * Rule "Krena2b"
 * Active
 */
if (aircraft . approach_fix is "KRENA"
AND aircraft . time >= 530
AND aircraft . time <= 2359
AND aircraft . name in INT_AIRLINE
AND runway . name is "09"
AND runway . arr_queue_length <= 15
) then DO use runway { 08 };

/*
 * Rule "KRENA3"
 * Active
 */
if (aircraft . approach_fix is "KRENA"
AND aircraft . time >= 530
AND aircraft . time < 2359
AND aircraft . market_seg is 4
AND runway . name is "09"
AND runway . arr_queue_length <= 15
) then DO use runway { 08 };

/*
 * Rule "KRENA4"
 * Active
 */
if (aircraft . approach_fix is "KRENA"
) then DO use runway { 09L };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq 15
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```
/*
 * Rule "PAYTN_Shift1"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 748
AND aircraft . time < 815
AND aircraft . type is_not "38*"
AND aircraft . type not_in NON_LAHSO_ACFT
AND aircraft . name not_in INT_AIRLINE
AND aircraft . market_seg is_not 4
) then DO use runway { 10 };

/*
 * Rule "PAYTN_Shift1a"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 748
AND aircraft . time < 815
AND aircraft . name in INT_AIRLINE
) then DO use runway { 11 };

/*
 * Rule "PAYTNShift1b"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 748
AND aircraft . time < 815
AND aircraft . type not_in NON_LAHSO_ACFT
) then DO use runway { 11 };

/*
 * Rule "PAYTNShift1c"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 748
AND aircraft . time < 815
AND aircraft . market_seg is 4
) then DO use runway { 11 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq 16
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "PAYTN_Shift2"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 945
AND aircraft . time < 1030
AND aircraft . type is_not "38*"
AND aircraft . type not_in NON_LAHSO_ACFT
AND aircraft . name not_in INT_AIRLINE
AND aircraft . market_seg is_not 4
) then DO use runway { 10 };

/*
 * Rule "PAYTN_Shift2a"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 945
AND aircraft . time < 1030
AND aircraft . name in INT_AIRLINE
) then DO use runway { 11 };

/*
 * Rule "PAYTNShift2b"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 945
AND aircraft . time < 1030
AND aircraft . type not_in NON_LAHSO_ACFT
) then DO use runway { 11 };

/*
 * Rule "PAYTNShift2c"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 945
AND aircraft . time < 1030
AND aircraft . market_seg is 4
) then DO use runway { 11 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq 17
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "PAYTN_Shift3"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1155
AND aircraft . time < 1233
AND aircraft . type is_not "38*"
AND aircraft . type not_in NON_LAHSO_ACFT
AND aircraft . name not_in INT_AIRLINE
AND aircraft . market_seg is_not 4
) then DO use runway { 10 };

/*
 * Rule "PAYTN_Shift3a"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1155
AND aircraft . time < 1233
AND aircraft . name in INT_AIRLINE
) then DO use runway { 11 };

/*
 * Rule "PAYTNShift3b"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1155
AND aircraft . time < 1233
AND aircraft . type not_in NON_LAHSO_ACFT
) then DO use runway { 11 };

/*
 * Rule "PAYTNShift3c"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1155
AND aircraft . time < 1233
AND aircraft . market_seg is 4
) then DO use runway { 11 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **18**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "PAYTN_Shift4"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1233
AND aircraft . time < 1255
AND aircraft . type is_not "38*"
) then DO use runway { 10R };

/*
 * Rule "PAYTN_Shift6"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1340
AND aircraft . time < 1356
AND aircraft . type is_not "38*"
) then DO use runway { 10R };

/*
 * Rule "PAYTN_Shift7"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1435
AND aircraft . time < 1450
AND aircraft . type is_not "38*"
AND aircraft . type not_in NON_LAHSO_ACFT
AND aircraft . name not_in INT_AIRLINE
AND aircraft . market_seg is_not 4
) then DO use runway { 10 };

/*
 * Rule "PAYTN_Shift7a"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1435
AND aircraft . time < 1450
AND aircraft . name in INT_AIRLINE
) then DO use runway { 11 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **19**
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```
/*
 * Rule "PAYTNShift7b"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1435
AND aircraft . time < 1450
AND aircraft . type not_in NON_LAHSO_ACFT
) then DO use runway { 11 };

/*
 * Rule "PAYTNShift7c"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1435
AND aircraft . time < 1450
AND aircraft . market_seg is 4
) then DO use runway { 11 };

/*
 * Rule "PAYTN_Shift8"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1505
AND aircraft . time <= 1600
AND aircraft . type is_not "38*"
) then do NOT use runway { 08,09 };

/*
 * Rule "PAYTN_Shift1a_1"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1510
AND aircraft . time < 1518
) then DO use runway { 10R };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **20**
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```
/*
 * Rule "PAYTN_Shift9"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1545
AND aircraft . time < 1600
AND aircraft . type is_not "38*"
) then DO use runway { 10R };

/*
 * Rule "PAYTN_Shift10"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1645
AND aircraft . time < 1655
AND runway . name is "09L"
AND runway . arr_queue_length >= 10
) then DO use runway { 10R };

/*
 * Rule "PAYTN_Shift11"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1655
AND aircraft . time < 1710
AND aircraft . type is_not "38*"
AND aircraft . type not_in NON_LAHSO_ACFT
AND aircraft . name not_in INT_AIRLINE
AND aircraft . market_seg is_not 4
) then DO use runway { 10 };

/*
 * Rule "PAYTN_Shift11a"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1655
AND aircraft . time < 1710
AND aircraft . name in INT_AIRLINE
) then DO use runway { 11 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq 21
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```
/*
 * Rule "PAYTNShift11b"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1655
AND aircraft . time < 1710
AND aircraft . type not_in NON_LAHSO_ACFT
) then DO use runway { 11 };

/*
 * Rule "PAYTNShift11c"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1655
AND aircraft . time < 1710
AND aircraft . market_seg is 4
) then DO use runway { 11 };

/*
 * Rule "PAYTN_Shift12"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1740
AND aircraft . time < 1815
AND aircraft . type is_not "38*"
) then DO use runway { 10R };

/*
 * Rule "PAYTNShift1c_1"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1842
AND aircraft . time < 1857
) then DO use runway { 10R };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **22**
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```
/*
 * Rule "PAYTN_Shift14"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1930
AND aircraft . time < 1945
AND aircraft . type is_not "38*"
AND aircraft . type not_in NON_LAHSO_ACFT
AND aircraft . name not_in INT_AIRLINE
AND aircraft . market_seg is_not 4
) then DO use runway { 10 };

/*
 * Rule "PAYTN_Shift14a"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1930
AND aircraft . time < 1945
AND aircraft . name in INT_AIRLINE
) then DO use runway { 11 };

/*
 * Rule "PAYTNShift14b"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1930
AND aircraft . time < 1945
AND aircraft . type not_in NON_LAHSO_ACFT
) then DO use runway { 11 };

/*
 * Rule "PAYTNShift14c"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1930
AND aircraft . time < 1945
AND aircraft . market_seg is 4
) then DO use runway { 11 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **23**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "PAYTNShift13c"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 1945
AND aircraft . time < 2010
) then DO use runway { 10R };

/*
 * Rule "PAYTN_Shift1_2"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 2010
AND aircraft . time < 2015
AND aircraft . type is_not "38*"
AND aircraft . type not_in NON_LAHSO_ACFT
AND aircraft . name not_in INT_AIRLINE
AND aircraft . market_seg is_not 4
) then DO use runway { 10 };

/*
 * Rule "PAYTNShift1b_2"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 2010
AND aircraft . time < 2015
AND aircraft . type not_in NON_LAHSO_ACFT
) then DO use runway { 11 };

/*
 * Rule "PAYTNShift1b_3"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 2010
AND aircraft . time < 2015
AND aircraft . type not_in INT_AIRLINE
) then DO use runway { 11 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **24**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "PAYTNShift1c_2"
 * Active
 */
if (aircraft . approach_fix is "PAYTN"
AND aircraft . time >= 2010
AND aircraft . time < 2015
AND aircraft . market_seg is 4
) then DO use runway { 11 };

/*
 * Rule "PAYTN1"
 * Active
 */
if (aircraft . approach_fix in NorthEastArrFixes
AND runway . name is "09L"
AND runway . arr_queue_length <= 16
AND aircraft . time > 530
) then DO use runway { 09L };

/*
 * Rule "PAYTN2"
 * Active
 */
if (aircraft . approach_fix in NorthEastArrFixes
AND aircraft . time > 530
AND aircraft . type not_in NON_LAHSO_ACFT
AND aircraft . name not_in INT_AIRLINE
AND runway . name is "09"
AND runway . arr_queue_length < 14
AND aircraft . market_seg is_not 4
) then DO use runway { 09 };

/*
 * Rule "Paytn2a"
 * Active
 */
if (aircraft . approach_fix in NorthEastArrFixes
AND aircraft . time >= 530
AND runway . name is "09"
AND runway . arr_queue_length < 14
AND aircraft . market_seg is 4
) then DO use runway { 08 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **25**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "PAYTN2b"
 * Active
 */
if (aircraft . arriving is True
AND aircraft . approach_fix in NorthEastArrFixes
AND aircraft . time > 530
AND runway . name is "09"
AND runway . arr_queue_length < 14
AND aircraft . type in NON_LAHSO_ACFT
) then DO use runway { 08 };

/*
 * Rule "PAYTN2c"
 * Active
 */
if (aircraft . approach_fix in NorthEastArrFixes
AND aircraft . time >= 530
AND aircraft . time < 2359
AND runway . name is "09"
AND runway . arr_queue_length < 14
AND aircraft . name in INT_AIRLINE
) then DO use runway { 08 };

/*
 * Rule "PAYTN3"
 * Active
 */
if (aircraft . arriving is True
AND aircraft . approach_fix in NorthEastArrFixes
AND aircraft . time >= 530
) then DO use runway { 09L };

/*
 * Rule "BRZShift1"
 * Active
 */
if (aircraft . approach_fix is "BEARZ"
AND aircraft . time >= 1050
AND aircraft . time <= 1130
AND runway . name is "10R"
AND runway . arr_queue_length >= 15
) then DO use runway { 09L };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **26**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "BRZShift3"
 * Active
 */
if (aircraft . approach_fix is "BEARZ"
AND aircraft . time >= 1835
AND aircraft . time <= 1845
) then do NOT use runway { 10R,09L };

/*
 * Rule "BRZShift4"
 * Active
 */
if (aircraft . approach_fix is "BEARZ"
AND aircraft . time >= 1340
AND aircraft . time < 1350
) then do NOT use runway { 10R };

/*
 * Rule "BEARZ1"
 * Active
 */
if (aircraft . approach_fix is "BEARZ"
AND runway . name is "10"
AND runway . arr_queue_length <= 19
AND aircraft . time > 530
AND aircraft . market_seg is_not 4
AND aircraft . type not_in NON_LAHSO_ACFT
AND aircraft . name not_in INT_AIRLINE
) then DO use runway { 10 };

/*
 * Rule "BEARZ1a"
 * Active
 */
if (aircraft . approach_fix is "BEARZ"
AND runway . name is "10"
AND runway . arr_queue_length <= 19
AND aircraft . time > 530
AND aircraft . market_seg is 4
) then DO use runway { 11 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **27**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "Bearz1b"
 * Active
 */
if (aircraft . approach_fix is "BEARZ"
AND runway . name is "10"
AND runway . arr_queue_length <= 19
AND aircraft . time > 530
AND aircraft . type in NON_LAHSO_ACFT
) then DO use runway { 11 };

/*
 * Rule "BEARZ1c"
 * Active
 */
if (aircraft . approach_fix is "BEARZ"
AND aircraft . time >= 530
AND aircraft . time < 2359
AND aircraft . name in INT_AIRLINE
AND runway . name is "10"
AND runway . arr_queue_length <= 19
) then DO use runway { 11 };

/*
 * Rule "BEARZ3"
 * Active
 */
if (aircraft . approach_fix is "BEARZ"
AND runway . name is "09L"
AND runway . arr_queue_length < 10
) then DO use runway { 09L };

/*
 * Rule "BEARZ2"
 * Active
 */
if (aircraft . approach_fix is "BEARZ"
AND runway . name is "10R"
AND runway . arr_queue_length < 25
) then DO use runway { 10R };

/*
 * Rule "BEARZ2z"
 * Active
 */
if (aircraft . approach_fix is "BEARZ"
) then DO use runway { 11 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **28**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "EBShift1"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix is "ORDEB"
AND aircraft . time >= 1205
AND aircraft . time < 1235
) then do NOT use runway { 10R,09R };

/*
 * Rule "EBShift1_1"
 * Active
 */
if (aircraft . departure_fix is "ORDEB"
AND aircraft . time >= 1735
AND aircraft . time < 1805
) then DO use runway { 10L };

/*
 * Rule "ECShift1"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix is "ORDEC"
AND aircraft . time >= 805
AND aircraft . time < 1030
) then DO use runway { 09R };

/*
 * Rule "ECShift2"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix is "ORDEC"
AND aircraft . time >= 1815
AND aircraft . time < 1850
) then DO use runway { 09R };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq 29
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "ECDeps2a"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix is "ORDEC"
AND aircraft . time >= 1910
AND aircraft . time <= 1935
) then DO use runway { 09R };

/*
 * Rule "ECShift3"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix is "ORDEC"
AND aircraft . time >= 1410
AND aircraft . time <= 1505
) then DO use runway { 09R };

/*
 * Rule "SASBShift1"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix in SASB
AND aircraft . time >= 755
AND aircraft . time < 854
) then DO use runway { 10L };

/*
 * Rule "SASBShift3"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix in SASB
AND aircraft . time >= 950
AND aircraft . time < 1100
) then DO use runway { 10L };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **30**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "SASBShift4"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix in SASB
AND aircraft . time >= 1115
AND aircraft . time < 1205
) then DO use runway { 10L };

/*
 * Rule "SASBShift4_1"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix in SASB
AND aircraft . time >= 1429
AND aircraft . time < 1545
) then DO use runway { 10L };

/*
 * Rule "SASBShift5"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix in SASB
AND aircraft . time >= 1630
AND aircraft . time <= 1740
) then DO use runway { 10L };

/*
 * Rule "SASBShift6"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix in SASB
AND aircraft . time >= 1845
AND aircraft . time < 2220
) then DO use runway { 10L };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **31**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "SASBWCWDShift1"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix in 10RDepJet
AND aircraft . time >= 600
AND aircraft . time < 655
) then DO use runway { 10L };

/*
 * Rule "SASBWCWDShift2"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix in 10RDepJet
AND aircraft . time >= 720
AND aircraft . time < 755
) then DO use runway { 10L };

/*
 * Rule "SASBWCWDShift3"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix in SASB
AND aircraft . time >= 1245
AND aircraft . time <= 1300
) then DO use runway { 10L };

/*
 * Rule "SCShift1"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix is "ORDSC"
AND aircraft . time >= 1315
AND aircraft . time < 1403
) then DO use runway { 10R };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **32**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "SCShift1_1"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix is "ORDSC"
AND aircraft . time >= 1545
AND aircraft . time < 1629
) then DO use runway { 10R };

/*
 * Rule "SCShift2"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix is "ORDSC"
AND aircraft . time >= 1740
AND aircraft . time <= 1800
) then DO use runway { 10R };

/*
 * Rule "08_380Dep"
 * Active
 */
if (aircraft . departing is True
AND aircraft . type is "38*"
AND aircraft . name in STAR380
) then DO use runway { 08 };

/*
 * Rule "09R_Dep"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix in 09RDepJets
AND aircraft . type is_not "380"
) then DO use runway { 09R };

/*
 * Rule "10L_Dep"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix in 10LDepJets
) then DO use runway { 10L };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **33**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "10R_Dep"
 * Active
 */
if (aircraft . departing is True
AND aircraft . departure_fix in 10RDepJet
AND aircraft . arr_airport not_in EurAsian
) then DO use runway { 10R };

/*
 * Rule "10R_WstCst"
 * Active
 */
if (aircraft . departing is True
AND aircraft . arr_airport in WstCst
AND aircraft . type in BigII
) then do NOT use runway { 10R };

/*
 * Rule "10_LongHaulDeps"
 * Active
 */
if (aircraft . departing is True
AND aircraft . arr_airport in long_haul
) then DO use runway { 10L };

/*
 * Rule "08Entrance1"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "08"
) then DO use rw entry/exit { twy_cl322 };

/*
 * Rule "09R_DepEntry"
 * Active
 */
if (aircraft . dep_runway is "09R"
) then DO use rw entry/exit { twy_cl817 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq **34**
taam@grolsh Thu Mar 25 16:31:06 2004

```
/*
 * Rule "10L_DepEntry"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . arr_airport not_in long_haul
) then DO use rw entry/exit { twy_cl584 };

/*
 * Rule "10L_LgHlEntry"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . arr_airport in long_haul
) then DO use rw entry/exit { twy_cl554 };

/*
 * Rule "LongHl_10LUse"
 * Active
 */
if (aircraft . departing is True
AND aircraft . arr_airport in long_haul
) then do NOT use runway { 09R,10R };

/*
 * Rule "380_11_Exits"
 * Active
 */
if (aircraft . arriving is True
AND aircraft . type is "38*"
) then do NOT use rw entry/exit { twy_cl514,twy_cl502,twy_cl484,twy_cl476 };

/*
 * Rule "Noise1"
 * Active
 */
if (aircraft . departing is True
AND aircraft . time >= 1
AND aircraft . time < 530
AND aircraft . dep_runway is "10L"
) then DO use rw entry/exit { twy_cl554 };
```

Runway: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_021204.rwq 35
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```
/*
 * Rule "Noise2"
 * Active
 */
if (aircraft . departing is True
AND aircraft . time >= 2145
AND aircraft . time < 2359
AND aircraft . dep_runway is "10L"
) then DO use rw entry/exit { twy_cl554 };
```

SidStar: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_011204.ssq 1
taam@grolsh Thu Mar 25 16:31:36 2004

```
/*
 * Group "SBND"
 */
group SBND = {
   "RBS",
   "EON",
   "WORDY",
   "GUIDO" };

/*
 * Group "SCSD"
 */
group SCSD = {
   "ORDSC",
   "ORDSD" };

/*
 * Group "10L_DepEntryRechk"
 */
group 10L_DepEntryRechk = {
   "twy_cl566",
   "twy_cl1135" };

/*
 * Rule "NighttimeSID1"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 1
AND aircraft . time < 600
AND aircraft . departure_fix is "ORDWA2"
) then DO use SID { KORD_10L_ORDWA2_33J.sid };

/*
 * Rule "NighttimeSID2"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 600
AND aircraft . time < 2200
AND aircraft . departure_fix is "ORDWA2"
) then do NOT use SID { KORD_10L_ORDWA2_33J.sid };
```

SidStar: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_011204.ssq 2
taam@grolsh Thu Mar 25 16:31:36 2004

```
/*
 * Rule "NighttimeSID3"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 2200
AND aircraft . time <= 2359
AND aircraft . departure_fix is "ORDWA2"
) then DO use SID { KORD_10L_ORDWA2_33J.sid };

/*
 * Rule "NighttimeSID4"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 1
AND aircraft . time < 600
AND aircraft . departure_fix is "ORDWB2"
) then DO use SID { KORD_10L_ORDWB2_33J.sid };

/*
 * Rule "NighttimeSID5"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 600
AND aircraft . time < 2200
AND aircraft . departure_fix is "ORDWB2"
) then do NOT use SID { KORD_10L_ORDWB2_33J.sid };

/*
 * Rule "NighttimeSID6"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 2200
AND aircraft . time <= 2359
AND aircraft . departure_fix is "ORDWB2"
) then DO use SID { KORD_10L_ORDWB2_33J.sid };
```

SidStar: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_011204.ssq **3**
taam@grolsh Thu Mar 25 16:31:36 2004

```
/*
 * Rule "NighttimeSID7"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 1
AND aircraft . time < 600
AND aircraft . departure_fix is "ORDWC2"
) then DO use SID { KORD_10L_ORDWC2_33J.sid };

/*
 * Rule "NighttimeSID8"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 600
AND aircraft . time < 2200
AND aircraft . departure_fix is "ORDWC2"
) then do NOT use SID { KORD_10L_ORDWC2_33J.sid };

/*
 * Rule "NighttimeSID9"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 2200
AND aircraft . time <= 2359
AND aircraft . departure_fix is "ORDWC2"
) then DO use SID { KORD_10L_ORDWC2_33J.sid };

/*
 * Rule "NighttimeSID10"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 1
AND aircraft . time < 600
AND aircraft . departure_fix is "ORDWD2"
) then DO use SID { KORD_10L_ORDWD2_33J.sid };
```

SidStar: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_011204.ssq 4
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```
/*
 * Rule "NighttimeSID11"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 600
AND aircraft . time < 2200
AND aircraft . departure_fix is "ORDWD2"
) then do NOT use SID { KORD_10L_ORDWD2_33J.sid };

/*
 * Rule "NighttimeSID12"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 2200
AND aircraft . time <= 2359
AND aircraft . departure_fix is "ORDWD2"
) then DO use SID { KORD_10L_ORDWD2_33J.sid };

/*
 * Rule "NighttimeSID13"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 1
AND aircraft . time < 600
AND aircraft . departure_fix is "BAE"
) then DO use SID { KORD_10L_BAE_33J.sid };

/*
 * Rule "NighttimeSID14"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 600
AND aircraft . time < 2200
AND aircraft . departure_fix is "BAE"
) then do NOT use SID { KORD_10L_BAE_33J.sid };
```

SidStar: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_011204.ssq **5**
taam@grolsh Thu Mar 25 16:31:36 2004

```
/*
 * Rule "NighttimeSID15"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 2200
AND aircraft . time <= 2359
AND aircraft . departure_fix is "BAE"
) then DO use SID { KORD_10L_BAE_33J.sid };

/*
 * Rule "NighttimeSID16"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 1
AND aircraft . time < 600
AND aircraft . departure_fix is "PETTY"
) then DO use SID { KORD_10L_PETTY_33J.sid };

/*
 * Rule "NighttimeSID17"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 600
AND aircraft . time < 2200
AND aircraft . departure_fix is "PETTY"
) then do NOT use SID { KORD_10L_PETTY_33J.sid };

/*
 * Rule "NighttimeSID18"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 2200
AND aircraft . time <= 2359
AND aircraft . departure_fix is "PETTY"
) then DO use SID { KORD_10L_PETTY_33J.sid };
```

SidStar: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_011204.ssq **6**
taam@grolsh Thu Mar 25 16:31:36 2004

```
/*
 * Rule "NighttimeSID19"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 1
AND aircraft . time < 600
AND aircraft . departure_fix is "ORDEA"
) then DO use SID { KORD_10L_ORDEA_33J.sid };

/*
 * Rule "NighttimeSID20"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 600
AND aircraft . time < 2200
AND aircraft . departure_fix is "ORDEA"
) then do NOT use SID { KORD_10L_ORDEA_33J.sid };

/*
 * Rule "NighttimeSID21"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 2200
AND aircraft . time <= 2359
AND aircraft . departure_fix is "ORDEA"
) then DO use SID { KORD_10L_ORDEA_33J.sid };

/*
 * Rule "NighttimeSID22"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 1
AND aircraft . time < 600
AND aircraft . departure_fix is "ORDEB"
) then DO use SID { KORD_10L_ORDEB_33J.sid };
```

SidStar: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_011204.ssq **7**
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```
/*
 * Rule "NighttimeSID23"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 600
AND aircraft . time < 2200
AND aircraft . departure_fix is "ORDEB"
) then do NOT use SID { KORD_10L_ORDEB_33J.sid };

/*
 * Rule "NighttimeSID24"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 2200
AND aircraft . time <= 2359
AND aircraft . departure_fix is "ORDEB"
) then DO use SID { KORD_10L_ORDEB_33J.sid };

/*
 * Rule "NighttimeSID25"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 1
AND aircraft . time < 600
AND aircraft . departure_fix is "ORDECJ"
) then DO use SID { KORD_10L_ORDEC_33J.sid };

/*
 * Rule "NighttimeSID26"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 600
AND aircraft . time < 2200
AND aircraft . departure_fix is "ORDEC"
) then do NOT use SID { KORD_10L_ORDEC_33J.sid };
```

SidStar: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_011204.ssq 8
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```
/*
 * Rule "NighttimeSID27"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 2200
AND aircraft . time <= 2359
AND aircraft . departure_fix is "ORDEC"
) then DO use SID { KORD_10L_ORDEC_33J.sid };

/*
 * Rule "NighttimeSID31"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 1
AND aircraft . time < 600
AND aircraft . departure_fix is "ORDSA"
) then DO use SID { KORD_10L_ORDSA_33J.sid };

/*
 * Rule "NighttimeSID32"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 600
AND aircraft . time < 2200
AND aircraft . departure_fix is "ORDSA"
) then do NOT use SID { KORD_10L_ORDSA_33J.sid };

/*
 * Rule "NighttimeSID33"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 2200
AND aircraft . time <= 2359
AND aircraft . departure_fix is "ORDSA"
) then DO use SID { KORD_10L_ORDSA_33J.sid };
```

SidStar: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_011204.ssq **9**
taam@grolsh Thu Mar 25 16:31:36 2004

```
/*
 * Rule "NighttimeSID34"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 1
AND aircraft . time < 600
AND aircraft . departure_fix is "ORDSB"
) then DO use SID { KORD_10L_ORDSB_33J.sid };

/*
 * Rule "NighttimeSID35"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 600
AND aircraft . time < 2200
AND aircraft . departure_fix is "ORDSB"
) then do NOT use SID { KORD_10L_ORDSB_33J.sid };

/*
 * Rule "NighttimeSID36"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 2200
AND aircraft . time <= 2359
AND aircraft . departure_fix is "ORDSB"
) then DO use SID { KORD_10L_ORDSB_33J.sid };

/*
 * Rule "NighttimeSID37"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 1
AND aircraft . time < 600
AND aircraft . departure_fix is "ORDSC"
) then DO use SID { KORD_10L_ORDSC_33J.sid };
```

SidStar: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_011204.ssq **10**
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```
/*
 * Rule "NighttimeSID38"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 600
AND aircraft . time < 2200
AND aircraft . departure_fix is "ORDSC"
) then do NOT use SID { KORD_10L_ORDSC_33J.sid };

/*
 * Rule "NighttimeSID39"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 2200
AND aircraft . time <= 2359
AND aircraft . departure_fix is "ORDSC"
) then DO use SID { KORD_10L_ORDSC_33J.sid };

/*
 * Rule "NighttimeSID40"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 1
AND aircraft . time < 600
AND aircraft . departure_fix is "ORDSD"
) then DO use SID { KORD_10L_ORDSD_33J.sid };

/*
 * Rule "NighttimeSID41"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 600
AND aircraft . time < 2200
AND aircraft . departure_fix is "ORDSD"
) then do NOT use SID { KORD_10L_ORDSD_33J.sid };
```

SidStar: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_011204.ssq **11**
taam@grolsh Thu Mar 25 16:31:36 2004

```
/*
 * Rule "NighttimeSID42"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 2200
AND aircraft . time <= 2359
AND aircraft . departure_fix is "ORDSD"
) then DO use SID { KORD_10L_ORDSD_33J.sid };

/*
 * Rule "NighttimeSID43"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 1
AND aircraft . time < 600
AND aircraft . departure_fix is "ORDSE"
) then DO use SID { KORD_10L_ORDSE_33J.sid };

/*
 * Rule "NighttimeSID44"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 600
AND aircraft . time < 2200
AND aircraft . departure_fix is "ORDSE"
) then do NOT use SID { KORD_10L_ORDSE_33J.sid };

/*
 * Rule "NighttimeSID45"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . time >= 2200
AND aircraft . time <= 2359
AND aircraft . departure_fix is "ORDSE"
) then DO use SID { KORD_10L_ORDSE_33J.sid };
```

SidStar: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_011204.ssq **12**
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```
/*
 * Rule "Rockford_Arr"
 * Active
 */
if (aircraft . dep_airport is "KRFD"
) then DO use STAR { KORD_09L_KRENA_335.sta };

/*
 * Rule "Rockford_Arr2"
 * Active
 */
if (aircraft . dep_airport is_not "KRFD"
) then do NOT use STAR { KORD_09L_KRENA_335.sta };

/*
 * Rule "KMKE_ARR"
 * Active
 */
if (aircraft . dep_airport is "KMKE"
AND aircraft . arr_airport is "KORD"
AND aircraft . arr_runway is "09L"
) then DO use STAR { KORD_09L_MKE150018_331 };

/*
 * Rule "KMKE_ARR2"
 * Active
 */
if (aircraft . dep_airport is "KMKE"
AND aircraft . arr_airport is "KORD"
AND aircraft . arr_runway is "09"
) then DO use SID { KORD_09_KMKE150018_331 };

/*
 * Rule "10L_SidChg1"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . curr_taxiway is "twy_cl1135"
AND aircraft . departure_fix is "ORDSA"
) then DO use SID { KORD_10L_ORDSA_331,KORD_10L_ORDSA_336 };
```

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```
/*
 * Rule "10L_SidChg2"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . curr_taxiway is "twy_cl1135"
AND aircraft . departure_fix is "ORDSB"
) then DO use SID { KORD_10L_ORDSB_331,KORD_10L_ORDSB_336 };

/*
 * Rule "10L_SidChg3"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . curr_taxiway is "twy_cl1135"
AND aircraft . departure_fix is "ORDSC"
) then DO use SID { KORD_10L_ORDSC_331,KORD_10L_ORDSC_336 };

/*
 * Rule "10L_SidChg4"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . curr_taxiway is "twy_cl1135"
AND aircraft . departure_fix is "ORDSD"
) then DO use SID { KORD_10L_ORDSD_331,KORD_10L_ORDSD_336 };

/*
 * Rule "10L_SidChg5"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . curr_taxiway is "twy_cl1135"
AND aircraft . departure_fix is "ORDSE"
) then DO use SID { KORD_10L_ORDSE_331,KORD_10L_ORDSE_336 };

/*
 * Rule "10L_SidChg6"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . curr_taxiway is "twy_cl1135"
AND aircraft . departure_fix is "ORDWC2"
) then DO use SID { KORD_10L_ORDWC2_331,KORD_10L_ORDWC2_336 };
```

SidStar: KORD
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```
/*
 * Rule "10L_SidChg7"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . curr_taxiway is "twy_cl1135"
AND aircraft . departure_fix is "ORDWD2"
) then DO use SID { KORD_10L_ORDWD2_331,KORD_10L_ORDWD2_336 };

/*
 * Rule "10L_SidChg1_1"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . arr_airport is "S*"
) then do NOT use SID { KORD_10L_ORDSE_332 };

/*
 * Rule "10L_SidChg1_2"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . arr_airport is "S*"
) then do NOT use SID { KORD_10L_ORDSC_332 };

/*
 * Rule "10L_SidChg1_3"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . name is "EGF553D"
AND aircraft . departure_fix is "ORDSC"
) then do NOT use SID { KORD_10L_ORDSC_332 };
```

Sequencing: KORD
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```
/*
 * Group "WAWB"
 */
group WAWB = {
   "ORDWA2",
   "ORDWB2" };

/*
 * Group "BigGuys"
 */
group BigGuys = {
   "74*",
   "77*",
   "38*" };

/*
 * Group "BAEPTYMATRU"
 */
group BAEPTYMATRU = {
   "BAE",
   "PETTY",
   "MATRU" };

/*
 * Group "WBNBBAEPTY"
 */
group WBNBBAEPTY = {
   "ORDWA2",
   "ORDWB2",
   "BAE",
   "PETTY",
   "MATRU" };

/*
 * Group "EAEB"
 */
group EAEB = {
   "ORDEA",
   "ORDEB" };

/*
 * Group "SCSDSE"
 */
group SCSDSE = {
   "ORDSC",
   "ORDSD",
   "ORDSE" };
```

Sequencing: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_0104.seq **2**
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```
/*
 * Group "EAEB_1"
 */
group EAEB_1 = { };

/*
 * Group "WAWBBAEPETTY"
 */
group WAWBBAEPETTY = {
    "ORDWA2",
    "ORDWB2",
    "BAE",
    "PETTY",
    "MATRU" };

/*
 * Group "WCWD"
 */
group WCWD = {
    "ORDWC2",
    "ORDWD2" };

/*
 * Group "SASB"
 */
group SASB = {
    "ORDSA",
    "ORDSB" };

/*
 * Group "SASBSCSCSDSE"
 */
group SASBSCSCSDSE = {
    "ORDSA",
    "ORDSB",
    "ORDSC",
    "ORDSD",
    "ORDSE" };

/*
 * Group "EBEC"
 */
group EBEC = {
    "ORDEB",
    "ORDEC" };
```

Sequencing: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_0104.seq **3**
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```
/*
 * Group "EAEBECSASBSCSDSE"
 */
group EAEBECSASBSCSDSE = {
   "ORDEA",
   "ORDEB",
   "ORDEC",
   "ORDSA",
   "ORDSB",
   "ORDSC",
   "ORDSD",
   "ORDSE" };

/*
 * Group "0809R"
 */
group 0809R = {
   "08",
   "09R" };

/*
 * Group "BAEPTYORDEABC"
 */
group BAEPTYORDEABC = {
   "BAE",
   "PETTY",
   "ORDEA",
   "ORDEB",
   "ORDEC",
   "MATRU" };

/*
 * Group "10L11"
 */
group 10L11 = {
   "10L",
   "11" };

/*
 * Group "BAEMATRU"
 */
group BAEMATRU = {
   "BAE",
   "MATRU" };
```

Sequencing: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_0104.seq **4**
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```
/*
 * Group "5DMESIDS"
 */
group 5DMESIDS = {
   "KORD_10L_ORDEA_331",
   "KORD_10L_ORDEB_331",
   "KORD_10L_ORDEC_331",
   "KORD_10L_ORDSA_331",
   "KORD_10L_ORDSB_331",
   "KORD_10L_ORDSC_331",
   "KORD_10L_ORDSD_331",
   "KORD_10L_ORDSE_331",
   "KORD_10L_ORDEB_336",
   "KORD_10L_ORDEC_336",
   "KORD_10L_ORDSA_336",
   "KORD_10L_ORDSB_336",
   "KORD_10L_ORDSC_336",
   "KORD_10L_ORDSD_336",
   "KORD_10L_ORDSE_336",
   "KORD_10L_ORDEA_336" };

/*
 * Group "WCWD_332337Sids"
 */
group WCWD_332337Sids = {
   "KORD_10L_ORDWC2_332",
   "KORD_10L_ORDWC2_337",
   "KORD_10L_ORDWD2_332",
   "KORD_10L_ORDWD2_337" };

/*
 * Group "SASB_332337Sids"
 */
group SASB_332337Sids = {
   "KORD_10L_ORDSA_332",
   "KORD_10L_ORDSA_337",
   "KORD_10L_ORDSB_332",
   "KORD_10L_ORDSB_337" };

/*
 * Group "SC332337SIDS"
 */
group SC332337SIDS = {
   "KORD_10L_ORDSC_332",
   "KORD_10L_ORDSC_337" };
```

Sequencing: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_0104.seq **5**
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```
/*
 * Group "SDSE332337Sids"
 */
group SDSE332337Sids = {
   "KORD_10L_ORDSD_332",
   "KORD_10L_ORDSD_337",
   "KORD_10L_ORDSE_332",
   "KORD_10L_ORDSE_337" };

/*
 * Group "WCWD_331336Sids"
 */
group WCWD_331336Sids = {
   "KORD_10L_ORDWC2_331",
   "KORD_10L_ORDWC2_336",
   "KORD_10L_ORDWD2_331",
   "KORD_10L_ORDWD2_336" };

/*
 * Group "SASB_331336Sids"
 */
group SASB_331336Sids = {
   "KORD_10L_ORDSA_331",
   "KORD_10L_ORDSA_336",
   "KORD_10L_ORDSB_331",
   "KORD_10L_ORDSB_336" };

/*
 * Group "SC331336SIDS"
 */
group SC331336SIDS = {
   "KORD_10L_ORDSC_331",
   "KORD_10L_ORDSC_336",
   "KORD_10L_ORDSA_331",
   "KORD_10L_ORDSB_331" };
```

Sequencing: KORD
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```
/*
 * Group "SDSE331336Sids"
 */
group SDSE331336Sids = {
   "KORD_10L_ORDSD_331",
   "KORD_10L_ORDSD_336",
   "KORD_10L_ORDSE_331",
   "KORD_10L_ORDSE_336",
   "KORD_10L_ORDSC_331",
   "KORD_10L_ORDSC_336",
   "KORD_10L_ORDSA_331",
   "KORD_10L_ORDSA_336",
   "KORD_10L_ORDSB_331",
   "KORD_10L_ORDSB_331",
   "KORD_10L_ORDWC2_331",
   "KORD_10L_ORDWD2_331" };

/*
 * Rule "09_dep_space"
 * Active
 */
if (aircraft . rwy_entry_point is "twy_cl817"
AND runway . name is "09R"
AND prev_aircraft . wake_turb_cat <= 1
AND prev_aircraft . rwy_entry_point is "twy_cl807"
) then departure separation { 3 min };

/*
 * Rule "10L_dep_space"
 * Active
 */
if (aircraft . rwy_entry_point is "twy_cl584"
AND runway . name is "10L"
AND prev_aircraft . rwy_entry_point is "twy_cl554"
AND prev_aircraft . wake_turb_cat <= 1
) then departure separation { 3 min };

/*
 * Rule "08_09RWkTurb1"
 * Active
 */
if (aircraft . dep_runway is "09R"
AND aircraft . wake_turb_cat <= 3
AND prev_aircraft . dep_runway is "08"
AND prev_aircraft . wake_turb_cat is 0
) then departure separation { 2 min };
```

Sequencing: KORD
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```
/*
 * Rule "08_09RWkTurb2"
 * Active
 */
if (aircraft . dep_runway is "09R"
AND aircraft . wake_turb_cat > 3
AND prev_aircraft . dep_runway is "08"
AND prev_aircraft . wake_turb_cat is 0
) then departure separation { 3 min };

/*
 * Rule "08_09RWkTurb3"
 * Active
 */
if (aircraft . dep_runway is "09R"
AND aircraft . wake_turb_cat <= 3
AND prev_aircraft . dep_runway is "08"
AND prev_aircraft . wake_turb_cat is 1
) then departure separation { 1 min };

/*
 * Rule "08_09RWkTurb4"
 * Active
 */
if (aircraft . dep_runway is "09R"
AND aircraft . wake_turb_cat is 4
AND prev_aircraft . dep_runway is "08"
AND prev_aircraft . wake_turb_cat is 2
) then departure separation { 3 min };

/*
 * Rule "08_09RWkTurb5"
 * Active
 */
if (aircraft . dep_runway is "08"
AND aircraft . wake_turb_cat <= 3
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . wake_turb_cat is 0
) then departure separation { 2 min };
```

Sequencing: KORD
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```
/*
 * Rule "08_09RWkTurb6"
 * Active
 */
if (aircraft . dep_runway is "08"
AND aircraft . wake_turb_cat > 3
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . wake_turb_cat is 0
) then departure separation { 3 min };

/*
 * Rule "08_09WkTurb7"
 * Active
 */
if (aircraft . dep_runway is "08"
AND aircraft . wake_turb_cat <= 3
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . wake_turb_cat is 1
) then departure separation { 1 min };

/*
 * Rule "08_09WkTurb8"
 * Active
 */
if (aircraft . dep_runway is "08"
AND aircraft . wake_turb_cat is 4
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . wake_turb_cat is 2
) then departure separation { 3 min };

/*
 * Rule "10L_11WkTurb1"
 * Active
 */
if (aircraft . dep_runway is "11"
AND aircraft . wake_turb_cat <= 3
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . wake_turb_cat is 0
) then departure separation { 2 min };
```

Sequencing: KORD
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```
/*
 * Rule "10L_11WkTurb2"
 * Active
 */
if (aircraft . dep_runway is "11"
AND aircraft . wake_turb_cat > 3
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . wake_turb_cat is 0
) then departure separation { 3 min };

/*
 * Rule "10L_11WkTurb3"
 * Active
 */
if (aircraft . dep_runway is "11"
AND aircraft . wake_turb_cat <= 3
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . wake_turb_cat is 1
) then departure separation { 1 min };

/*
 * Rule "10L_11WkTurb4"
 * Active
 */
if (aircraft . dep_runway is "11"
AND aircraft . wake_turb_cat is 4
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . wake_turb_cat is 2
) then departure separation { 3 min };

/*
 * Rule "10L_11WkTurb5"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . wake_turb_cat <= 3
AND prev_aircraft . dep_runway is "11"
AND prev_aircraft . wake_turb_cat is 0
) then departure separation { 2 min };
```

Sequencing: KORD
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```
/*
 * Rule "10L_10WkTurb6"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . wake_turb_cat > 3
AND prev_aircraft . dep_runway is "11"
AND prev_aircraft . wake_turb_cat is 0
) then departure separation { 3 min };

/*
 * Rule "10L_11WkTurb7"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . wake_turb_cat <= 3
AND prev_aircraft . dep_runway is "11"
AND prev_aircraft . wake_turb_cat is 1
) then departure separation { 1 min };

/*
 * Rule "10L_10WkTurb8"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . wake_turb_cat is 4
AND prev_aircraft . dep_runway is "11"
AND prev_aircraft . wake_turb_cat is 2
) then departure separation { 3 min };

/*
 * Rule "DepDepSep1"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "09R"
AND aircraft . departure_fix is "ORDWB2"
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix is "ORDWB2"
) then departure separation { 4 nm };
```

Sequencing: KORD
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```
/*
 * Rule "DepDepSep2"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "09R"
AND aircraft . departure_fix is "ORDWA2"
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix is "ORDWA2"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep3"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "09R"
AND aircraft . departure_fix in BAEPTYMATRU
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix in BAEPTYMATRU
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep5"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "09R"
AND aircraft . departure_fix is "ORDEA"
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix is "ORDEA"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep6"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "09R"
AND aircraft . departure_fix is "ORDEB"
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix is "ORDEB"
) then departure separation { 4 nm };
```

Sequencing: KORD
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```
/*
 * Rule "DepDepSep7"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "09R"
AND aircraft . departure_fix is "ORDEC"
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix is "ORDEC"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep14"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "09R"
AND aircraft . departure_fix is "ORDSE"
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix is "ORDSE"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep13"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "09R"
AND aircraft . departure_fix is "ORDSD"
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix is "ORDSD"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep15"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "09R"
AND aircraft . departure_fix is "ORDSC"
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix is "ORDSC"
) then departure separation { 4 nm };
```

Sequencing: KORD
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```
/*
 * Rule "DepDepSep16"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . departure_fix is "ORDEC"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDEC"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep18"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . departure_fix is "ORDSE"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDSE"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep19"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . departure_fix is "ORDSD"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDSD"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep20"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . departure_fix is "ORDSC"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDSC"
) then departure separation { 4 nm };
```

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```
/*
 * Rule "DepDepSep21"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . departure_fix is "ORDSB"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDSB"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep22"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . departure_fix is "ORDSA"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDSA"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep23"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . departure_fix is "ORDWC2"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDWC2"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep24"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . departure_fix is "ORDWD2"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDWD2"
) then departure separation { 4 nm };
```

Sequencing: KORD
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```
/*
 * Rule "DepDepSep9"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10R"
AND aircraft . departure_fix is "ORDWC2"
AND prev_aircraft . dep_runway is "10R"
AND prev_aircraft . departure_fix is "ORDWC2"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep10"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10R"
AND aircraft . departure_fix is "ORDWD2"
AND prev_aircraft . dep_runway is "10R"
AND prev_aircraft . departure_fix is "ORDWD2"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep11"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10R"
AND aircraft . departure_fix is "ORDSA"
AND prev_aircraft . dep_runway is "10R"
AND prev_aircraft . departure_fix is "ORDSA"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep12"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10R"
AND aircraft . departure_fix is "ORDSB"
AND prev_aircraft . dep_runway is "10R"
AND prev_aircraft . departure_fix is "ORDSB"
) then departure separation { 4 nm };
```

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```
/*
 * Rule "DepDepSep25"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10R"
AND aircraft . departure_fix is "ORDSC"
AND prev_aircraft . name is "10R"
AND prev_aircraft . name is "ORDSC"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep26"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10R"
AND aircraft . departure_fix is "ORDSD"
AND prev_aircraft . name is "10R"
AND prev_aircraft . name is "ORDSD"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep27"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10R"
AND aircraft . departure_fix is "ORDSE"
AND prev_aircraft . dep_runway is "10R"
AND prev_aircraft . departure_fix is "ORDSE"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep28"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . departure_fix is "ORDEA"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDEA"
) then departure separation { 4 nm };
```

Sequencing: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_0104.seq **17**
taam@grolsh Thu Mar 25 16:32:15 2004

```
/*
 * Rule "DepDepSep29"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . departure_fix is "ORDEB"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDEB"
) then departure separation { 4 nm };

/*
 * Rule "DepDepSep30"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "09R"
AND aircraft . departure_fix in EBEC
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix in EBEC
) then departure separation { 3 nm };

/*
 * Rule "DepDepSep31a"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . SID in 5DMESIDS
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . SID in 5DMESIDS
) then departure separation { 3 nm };

/*
 * Rule "DepDepSep31b"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . SID in WCWD_332337Sids
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . SID in WCWD_332337Sids
) then departure separation { 3 nm };
```

Sequencing: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_0104.seq 18
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```
/*
 * Rule "DepDepSep31C"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . SID in SASB_332337Sids
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . SID in SASB_332337Sids
) then departure separation { 3 nm };

/*
 * Rule "DepDepSep31d"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . SID in SC332337SIDS
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . SID in SC332337SIDS
) then departure separation { 3 nm };

/*
 * Rule "DepDepSep31E"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . SID in SDSE332337Sids
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . SID in SDSE332337Sids
) then departure separation { 3 nm };

/*
 * Rule "DepDepSep31f"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . SID in WCWD_332337Sids
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . SID in WCWD_331336Sids
) then departure separation { 5 nm };
```

Sequencing: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_0104.seq **19**
taam@grolsh Thu Mar 25 16:32:15 2004

```
/*
 * Rule "DepDepSep31h"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . SID in SASB_332337Sids
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . SID in SDSE331336Sids
) then departure separation { 5 nm };

/*
 * Rule "DepDepSep31i"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . SID in SC332337SIDS
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . SID in SC331336SIDS
) then departure separation { 5 nm };

/*
 * Rule "DepDepSep31J"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . SID in SDSE332337Sids
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . SID in SDSE331336Sids
) then departure separation { 5 nm };

/*
 * Rule "08_09RDepDepSep"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "08"
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix is "ORDEA"
) then departure separation { 4 nm };
```

Sequencing: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_0104.seq **20**
taam@grolsh Thu Mar 25 16:32:15 2004

```
/*
 * Rule "DepDepSep32"
 * Active
 */
if (aircraft . dep_runway is "10R"
AND aircraft . departure_fix in WCWD
AND prev_aircraft . dep_runway is "10R"
AND prev_aircraft . departure_fix in WCWD
) then departure separation { 3 nm };

/*
 * Rule "DepDepSep33"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "09R"
AND aircraft . departure_fix in WAWB
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix in WAWB
) then departure separation { 3 nm };

/*
 * Rule "10L_10RWkTurbSep1"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . departure_fix in WCWD
AND prev_aircraft . dep_runway is "10R"
AND prev_aircraft . departure_fix in WCWD
) then departure separation { 1 min };

/*
 * Rule "10L_10WkTurbSep1a"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10R"
AND aircraft . departure_fix in WCWD
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix in WCWD
) then departure separation { 1 min };
```

Sequencing: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_0104.seq **21**
taam@grolsh Thu Mar 25 16:32:15 2004

```
/*
 * Rule "10L_10RWkTurbSep2"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . departure_fix in SASB
AND prev_aircraft . dep_runway is "10R"
AND prev_aircraft . departure_fix in SASB
) then departure separation { 1 min };

/*
 * Rule "10L_10RWkTurbSep2a"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10R"
AND aircraft . departure_fix in SASB
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix in SASB
) then departure separation { 2.0 min };

/*
 * Rule "10L_HvyDep_WkTurbSep1"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway in 0809R
AND aircraft . departure_fix in BAEPTYORDEABC
AND prev_aircraft . dep_runway in 10L11
AND prev_aircraft . departure_fix in WBNBBAEPTY
AND prev_aircraft . wake_turb_cat < 2
) then departure separation { 2 min };

/*
 * Rule "09R_HvyDep_WkTurbSep2"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . departure_fix in WAWBBAEPETTY
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . wake_turb_cat < 2
) then departure separation { 2 min };
```

Sequencing: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_0104.seq **22**
taam@grolsh Thu Mar 25 16:32:15 2004

```
/*
 * Rule "10L_10RWkTurbSep3a"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10R"
AND aircraft . departure_fix is "ORDSC"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDSC"
) then departure separation { 2.4 min };

/*
 * Rule "10L_10RWkTurbSep4"
 * Active
 */
if (aircraft . dep_runway is "10R"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix in WCWD
) then departure separation { 1.1 min };

/*
 * Rule "10L_10RWKTurbSep5"
 * Active
 */
if (aircraft . dep_runway is "10R"
AND aircraft . departure_fix is "ORDSB"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDSA"
) then departure separation { 1.6 min };

/*
 * Rule "10L_10RWkTurb6"
 * Active
 */
if (aircraft . dep_runway is "10R"
AND aircraft . departure_fix is "ORDSB"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDSB"
) then departure separation { 2.1 min };
```

Sequencing: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_0104.seq **23**
taam@grolsh Thu Mar 25 16:32:15 2004

```
/*
 * Rule "08Dep09Arr"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "08"
AND runway . name is "09"
AND runway . occupied is True
) then do not depart { };

/*
 * Rule "10RArrSep"
 * Active
 */
if (aircraft . arr_runway is "10R"
AND runway . name is "10R"
AND runway . num_taxiing_for_dep > 5
) then arrival separation { 4 nm };

/*
 * Rule "09R_10LWkTurbSep"
 * Active
 */
if (aircraft . dep_runway is "09R"
AND aircraft . departure_fix is "ORDEA"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDEA"
) then departure separation { 1.1 min };

/*
 * Rule "09R_10LWkTurb2"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . departure_fix is "ORDEA"
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix is "ORDEA"
) then departure separation { 1.1 min };
```

Sequencing: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_0104.seq **24**
taam@grolsh Thu Mar 25 16:32:15 2004

```
/*
 * Rule "09R_10LWkTurb3"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . departure_fix is "ORDEB"
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix is "ORDEB"
) then departure separation { 1.1 min };

/*
 * Rule "09R_10LWkTurb4"
 * Active
 */
if (aircraft . dep_runway is "09R"
AND aircraft . departure_fix is "ORDEB"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDEB"
) then departure separation { 1.1 min };

/*
 * Rule "09R_10LWkTurb5"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . departure_fix is "ORDEC"
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix is "ORDEC"
) then departure separation { 1.5 min };

/*
 * Rule "09R_10LWkTurb6"
 * Active
 */
if (aircraft . dep_runway is "09R"
AND aircraft . departure_fix is "ORDEC"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "ORDEC"
) then departure separation { 1.1 min };
```

Sequencing: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_0104.seq **25**
taam@grolsh Thu Mar 25 16:32:15 2004

```
/*
 * Rule "09R_10LWkTurb8"
 * Active
 */
if (aircraft . dep_runway is "09R"
AND aircraft . departure_fix is "BAE"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "BAE"
) then departure separation { 1.5 min };

/*
 * Rule "09R_10LWkTurb7"
 * Active
 */
if (aircraft . dep_runway is "09R"
AND aircraft . departure_fix is "PETTY"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix is "PETTY"
) then departure separation { 1.5 min };

/*
 * Rule "09R_10LWkTurb9"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . departure_fix is "BAE"
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix is "BAE"
) then departure separation { 1 min };

/*
 * Rule "09R_10LWkTurb10"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND aircraft . departure_fix is "PETTY"
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix is "PETTY"
) then departure separation { 1 min };

/*
 * Rule "09R_10dEPwKTurb"
 * Active
 */
if (aircraft . dep_runway is "09R"
AND prev_aircraft . dep_runway is "11"
) then departure separation { 2.5 min };
```

Sequencing: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_0104.seq **26**
taam@grolsh Thu Mar 25 16:32:15 2004

```
/*
 * Rule "10L_09RWkTurb11"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix in BAEPTYMATRU
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix in BAEPTYORDEABC
) then departure separation { 0.75 min };

/*
 * Rule "10L_09RWkTurb"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "09R"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix in WAWBBAEPETTY
) then departure separation { 1.1 min };

/*
 * Rule "10R_EveGap2"
 * Active
 */
if (aircraft . arriving is True
AND aircraft . arr_runway is "10R"
AND prev_aircraft . arr_runway is "10R"
AND aircraft . time >= 1645
AND aircraft . time < 1730
) then arrival separation { 4 nm };

/*
 * Rule "10L_Prop_Sep"
 * Active
 */
if (aircraft . dep_runway is "10L"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . type is "C210"
) then departure separation { 3 min };
```

Sequencing: KORD
data/apt/KORD/rules/KORD_EIS_EXP33_0104.seq 27
taam@grolsh Thu Mar 25 16:32:15 2004

```
/*
 * Rule "10L_09RWkTurb5"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "10L"
AND aircraft . departure_fix in BAEPTYMATRU
AND prev_aircraft . dep_runway is "09R"
AND prev_aircraft . departure_fix in BAEPTYMATRU
) then arrival separation { 1 min };

/*
 * Rule "09r_10lwbounddeps"
 * Active
 */
if (aircraft . departing is True
AND aircraft . dep_runway is "09R"
AND prev_aircraft . dep_runway is "10L"
AND prev_aircraft . departure_fix in WAWB
) then departure separation { 3.2 min };
```

Group: Jet: H ☑ M ☑ L ☑ Tprop: H ☑ M ☑ L ☑ Piston: A ☑
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **8.0** DME **ORD**

Reach **3000** FT or above by **5.0** DME **ORD**

Reach **4000** FT or above by **8.0** DME **ORD**

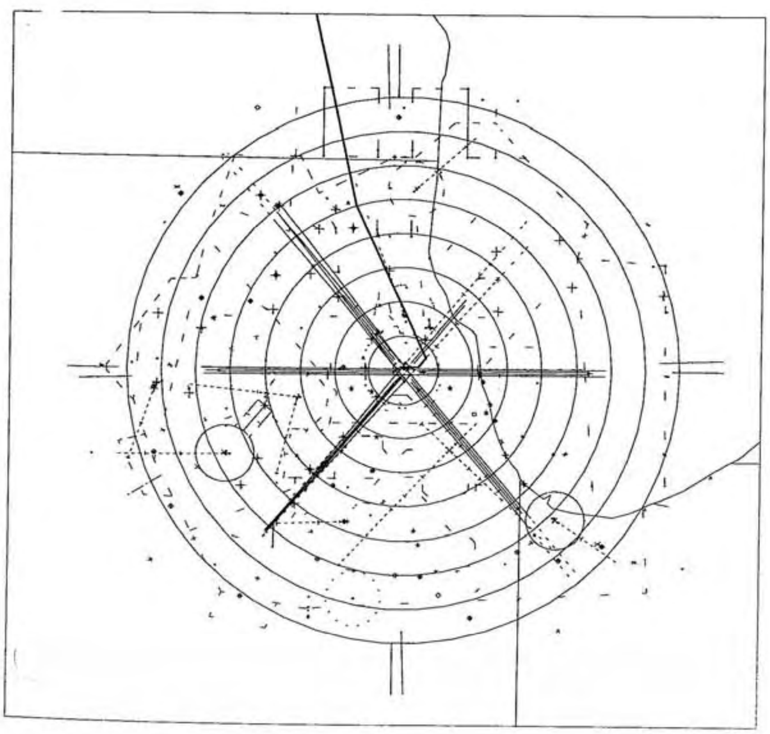
At **2500** FT turn **Auto** and track directly to **ORD600** VOR

At **0.1** DME **ORD600** turn **Auto** and track directly to **ORD591** VOR

At **0.1** DME **ORD591** turn **Auto** and track directly to **BAE** VOR

Track to **BAE** and as flight planned

8 to BAE



Project: KORD_EIS_EXP33 Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **10.0** DME **ORD**

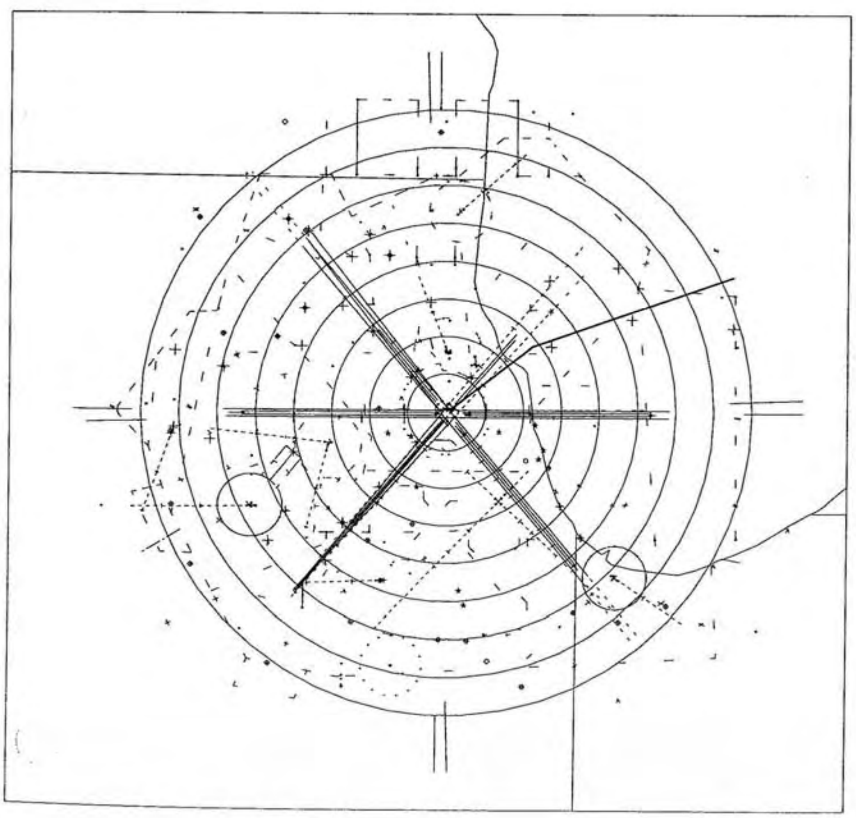
At **1600** FT turn **Left** heading **055**

When crossing **090** radial **PWK** VOR turn **Auto** and track directly to **ORDEA** VOR

At **0.1** DME **ORDEA** turn **Auto** and track directly to **ORDEA** VOR

Track to **ORDEA** and as flight planned

8 to ORDEA



Project: KORD_EIS_EXP33

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Group: Jet: H ☑ M ☑ L ☑ Tprop: H ☑ M ☑ L ☑ Piston: A ☑
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **8.0** DME **ORD**

Reach **3000** FT or above by **5.0** DME **ORD**

At **3000** FT turn **Auto** and track directly to **ORD600** VOR

At **0.1** DME **ORD600** turn **Auto** and track directly to **ORD241** VOR

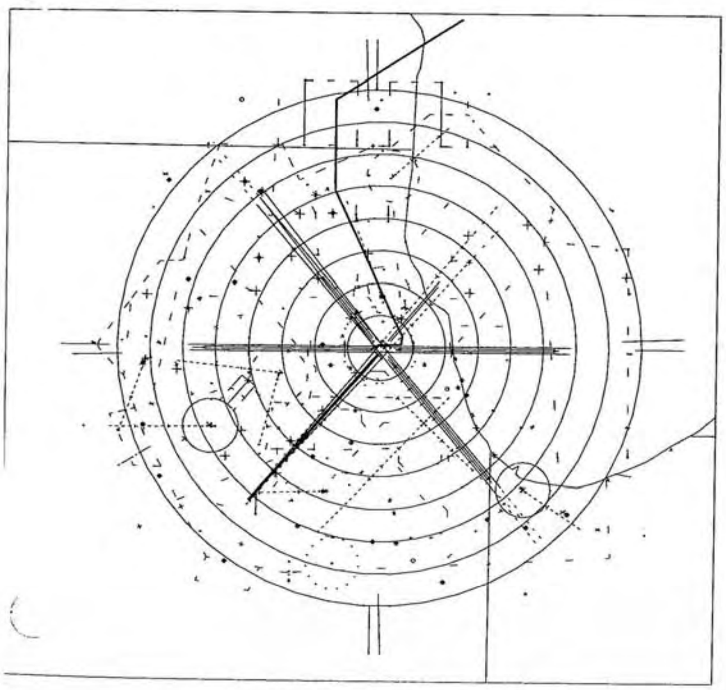
At **0.1** DME **ORD241** turn **Auto** and track directly to **ORD591** VOR

At **0.1** DME **ORD591** turn **Auto** and heading **003**

When crossing **240** radial **PETTY** VOR turn **Auto** and track directly to **PETTY** VOR

Track to **PETTY** and as flight planned

8 to PETTY



Project: KORD_EIS_EXP33 Printed by taam

Group: Jet: H ☑ M ☑ L ☑ Tprop: H ☑ M ☑ L ☑ Piston: A ☑
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **15.0** DME **ORD**

Reach **4000** FT or above by **8.0** DME **ORD**

At **2000** FT turn **Auto** and track directly to **ORD600** VOR

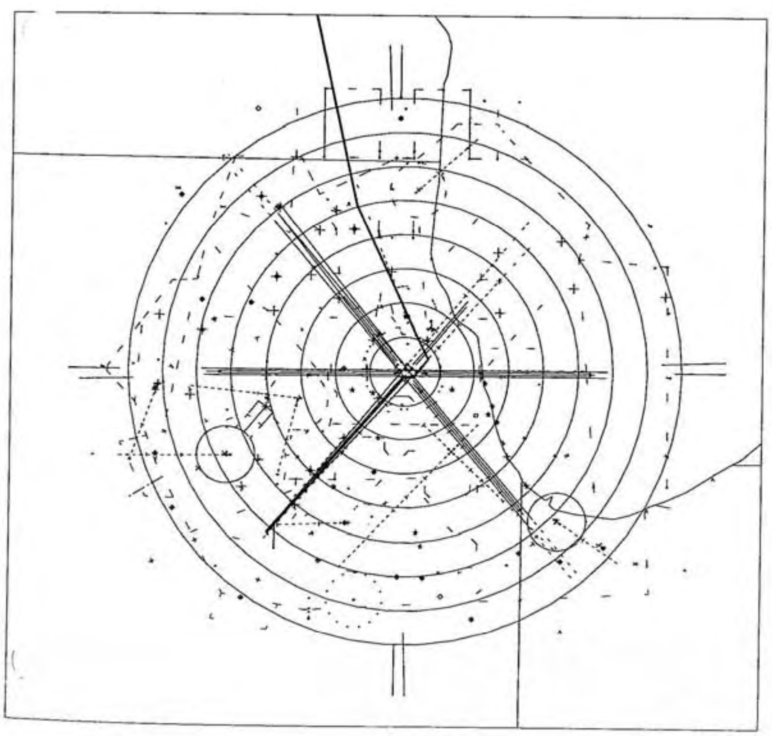
At **0.1** DME **ORD600** turn **Auto** and track directly to **ORD241** VOR

At **0.1** DME **ORD241** turn **Auto** and track directly to **ORD591** VOR

At **0.1** DME **ORD591** turn **Auto** and track directly to **BAE** VOR

Track to **BAE** and as flight planned

11 to BAE



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H ☑ M ☑ L ☑ Tprop: H ☑ M ☑ L ☑ Piston: A ☑
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **8.0** DME **ORD**

At **3000** FT turn **Left** and track directly to **ORD600** VOR

At **0.1** DME **ORD600** turn **Auto** and track directly to **ORD241** VOR

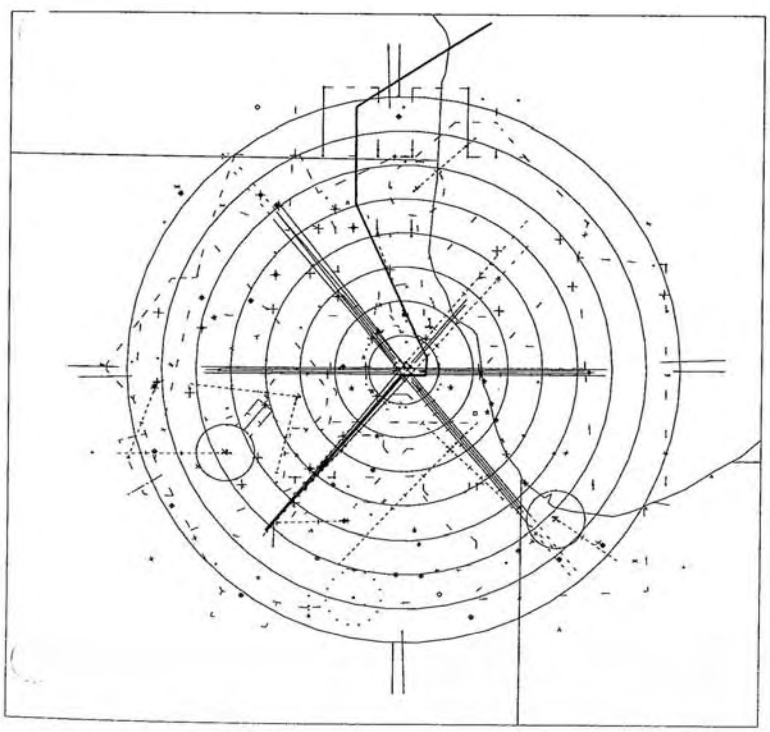
At **0.1** DME **ORD241** turn **Auto** and track directly to **ORD591** VOR

At **0.1** DME **ORD591** turn **Auto** and heading **003**

When crossing **240** radial **PETTY** VOR turn **Auto** and track directly to **PETTY** VOR

Track to **PETTY** and as flight planned

11 to PETTY



Project: KORD_EIS_EXP33 Printed by taam

Group:	Jet:	H ☑	M ☑	L ☑	Tprop:	H ☐	M ☐	L ☐	Piston:	A ☐
Display:		H	M	L		H	M	L		A

Maintain runway heading

Do not climb above **5000** until **8.0** DME **ORD**

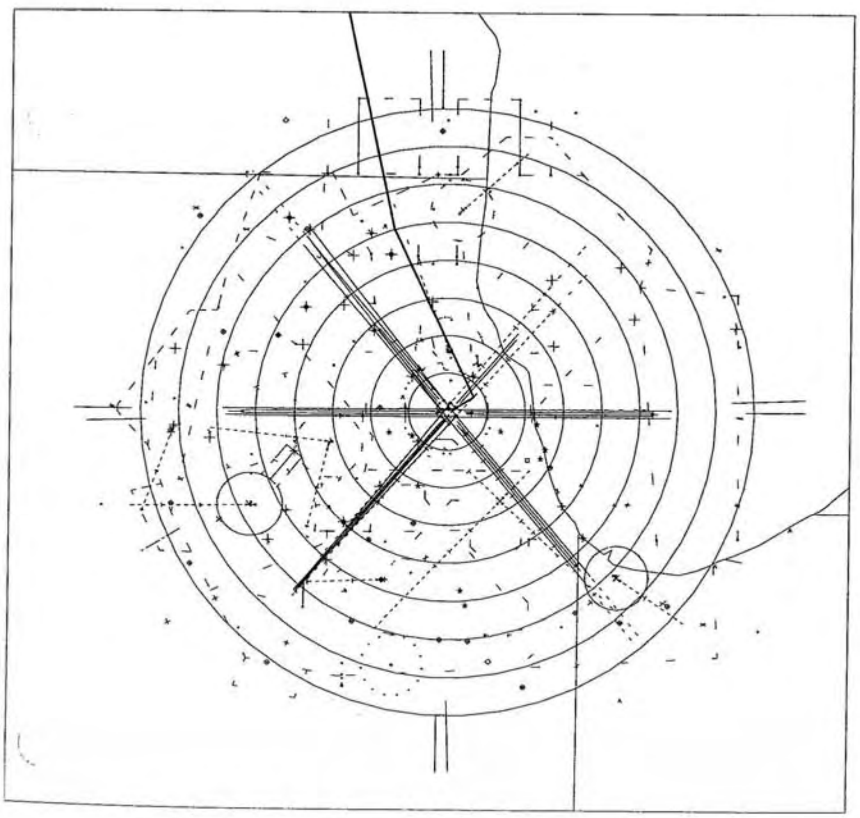
At **1600** FT turn **Left** and track directly to **ORD600** VOR

At **0.1** DME **ORD600** turn **Auto** and track directly to **ORD591** VOR

At **0.1** DME **ORD591** turn **Auto** and track directly to **BAE** VOR

Track to **BAE** and as flight planned

09R to BAE



Project: KORD_EIS_EXP33

Printed by taam

Group:	Jet: H ☐	M ☐	L ☐	Tprop:	H ☑	M ☑	L ☑	Piston:	A ☑
Display:	H	M	L		H	M	L		A

Maintain runway heading

Do not climb above **11000** until **35.0** DME **ORD**

Do not climb above **5000** until **20.0** DME **WAUKE**

Reach **3000** FT or above by **5.0** DME **ORD**

Reach **4000** FT or above by **8.0** DME **ORD**

At **12.0** DME **ORD** turn **Auto** and heading **040**

At **17.0** DME **ORD** turn **Auto** and track directly to **ORD591** VOR

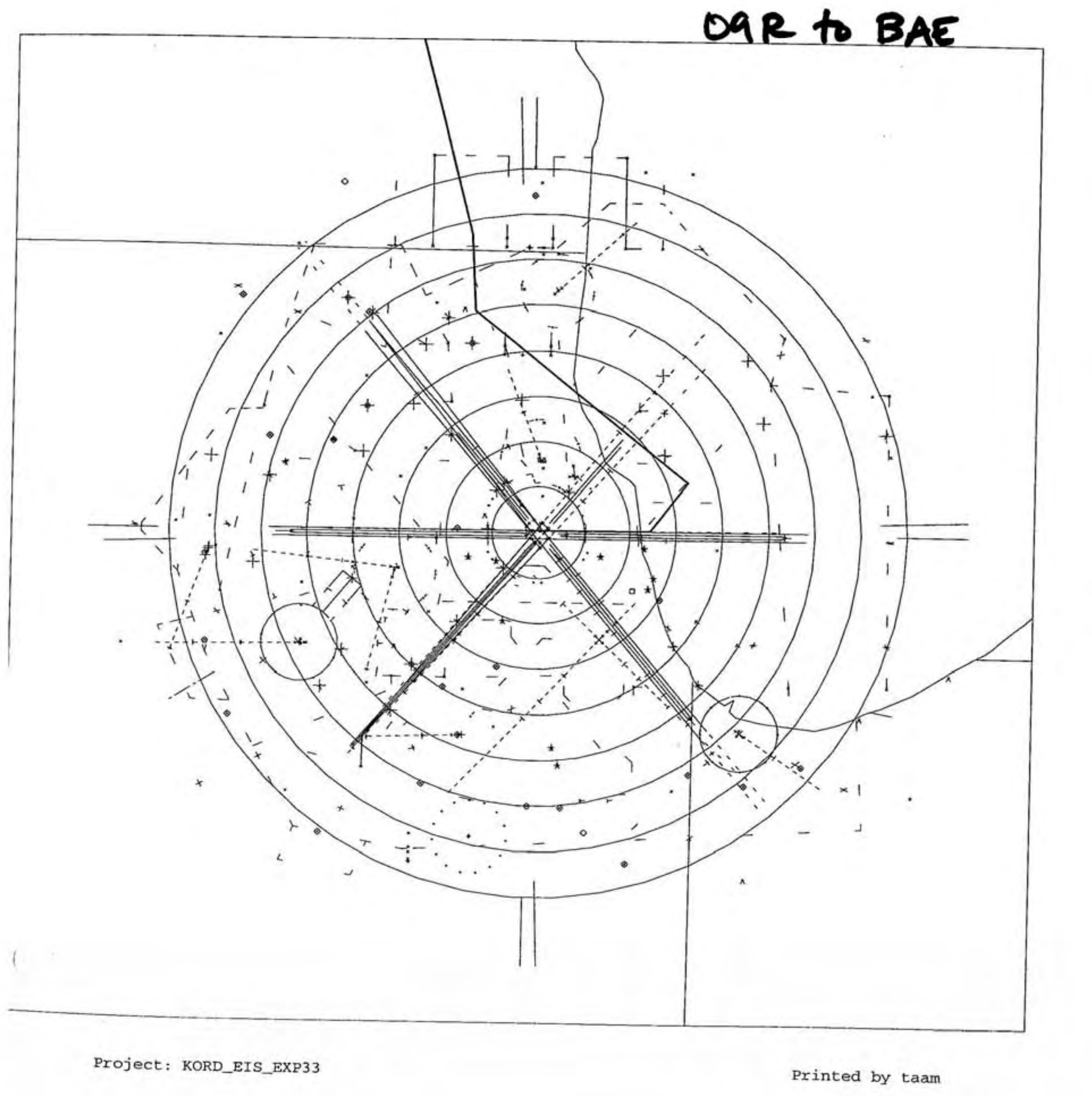
At **0.1** DME **ORD591** turn **Auto** and heading **360**

At **33.0** DME **ORD** turn **Auto** and track directly to **BAE** VOR

Track to **BAE** and as flight planned

09R to BAE

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam


09R to BAE
Project: KORD_EIS_EXP33
Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **10.0** DME **ORD**

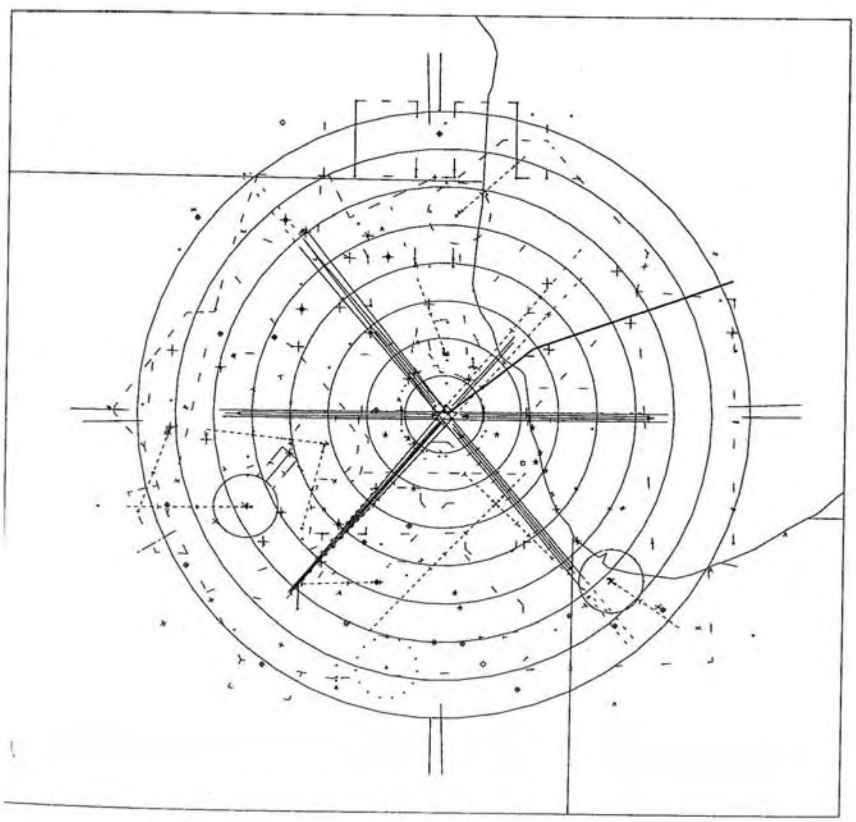
At **1600** FT turn **Left** heading **055**

When crossing **090** radial **PWK** VOR turn **Auto** and track directly to **ORDEA** VOR

At **0.1** DME **ORDEA** turn **Auto** and track directly to **ORDEA** VOR

Track to **ORDEA** and as flight planned

09R to ORDEA



Project: KORD_EIS_EXP33 Printed by taam

Group: Jet: H ☑ M ☑ L ☑ Tprop: H ☐ M ☐ L ☐ Piston: A ☐
Display: H M L H M L A

Maintain runway heading

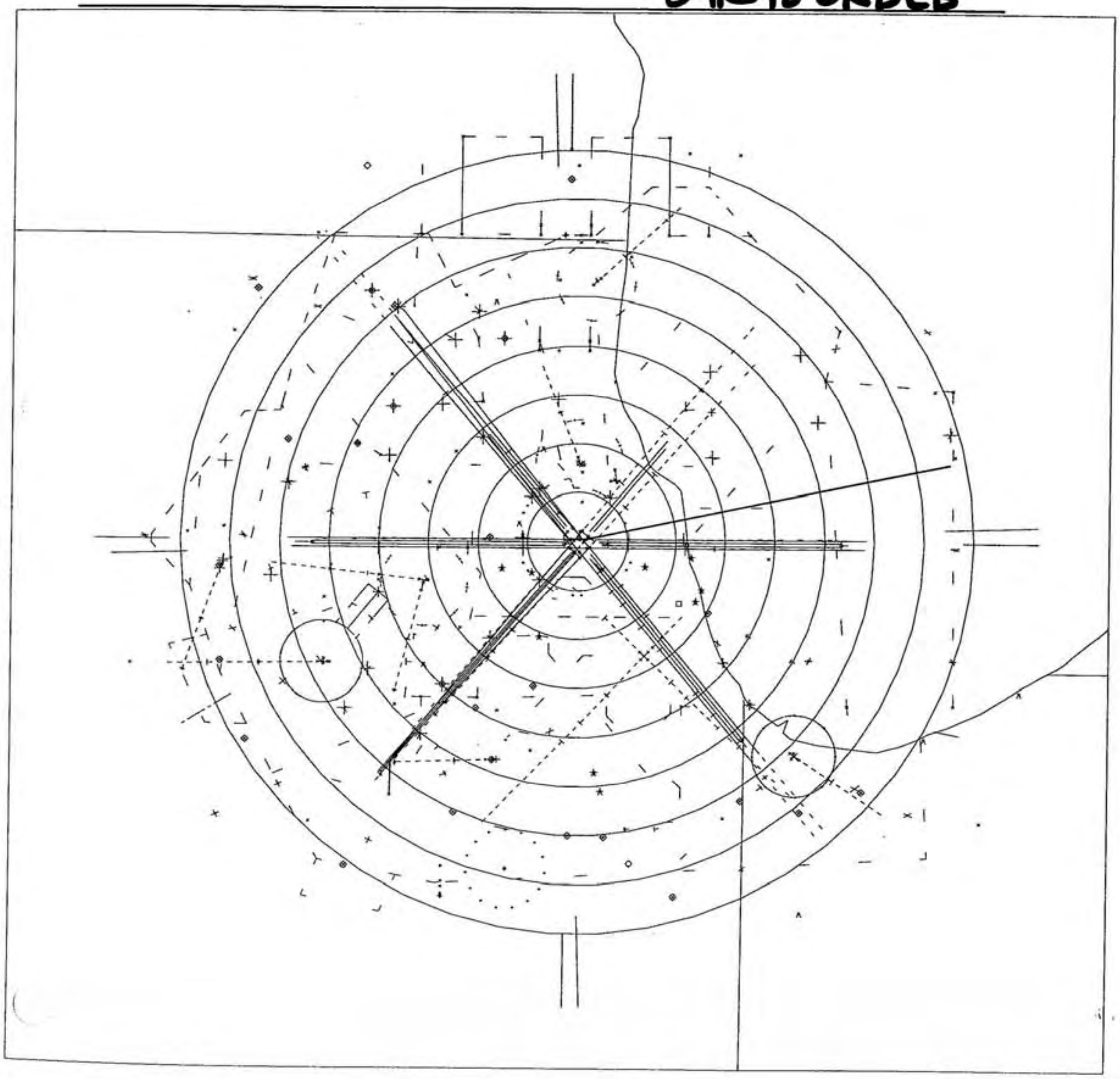
Do not climb above **5000** until **10.0** DME **ORD**

At **1600** FT turn **Auto** and track directly to **ORDEB** VOR

At **0.1** DME **ORDEB** turn **Auto** and track directly to **ORDEB** VOR

Track to **ORDEB** and as flight planned

09R to ORDEB



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H□ M□ L□ Piston: A□
Display: H M L H M L A

Maintain runway heading

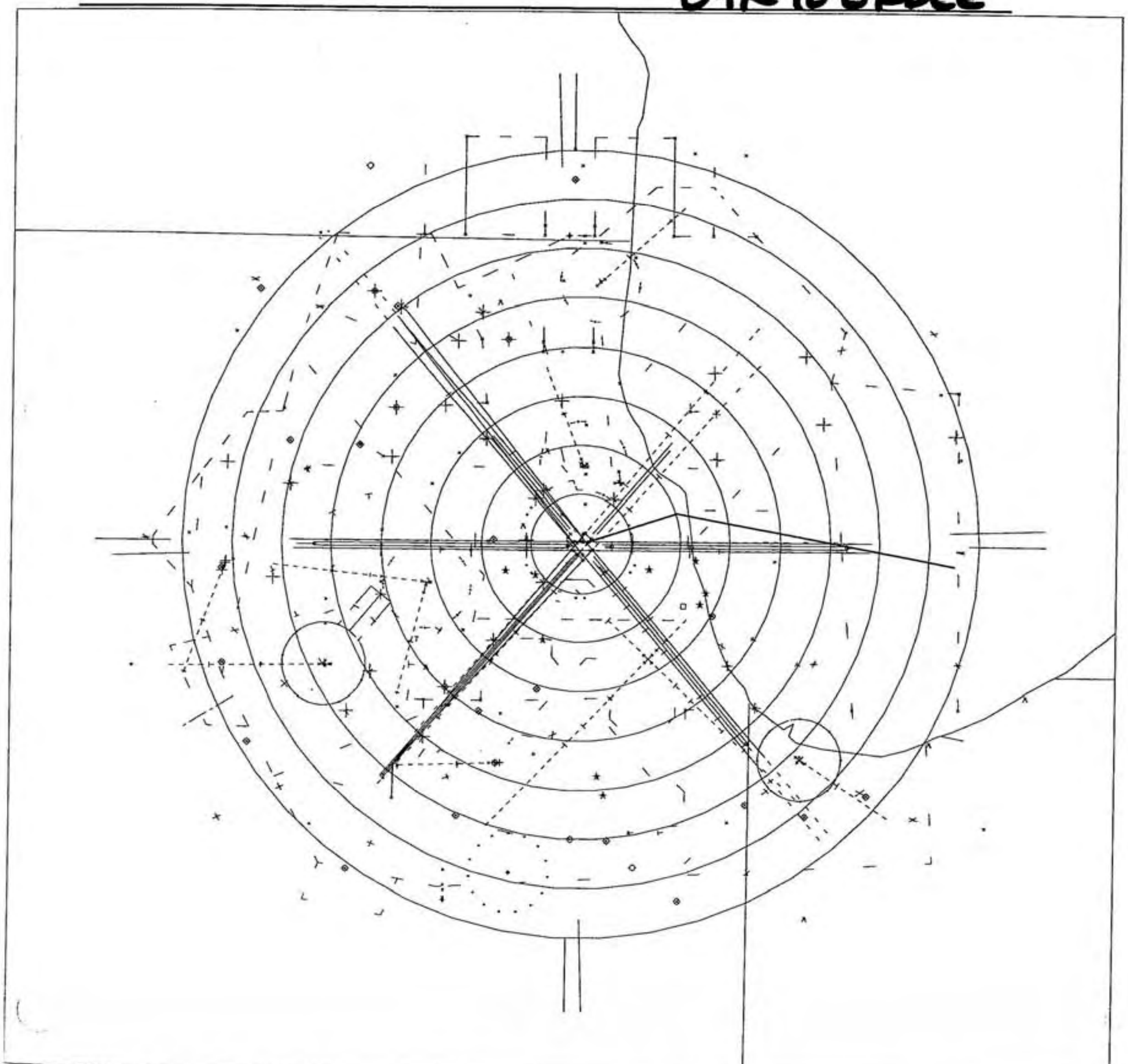
Do not climb above **5000** until **6.0** DME **ORD**

At **1600** FT turn **Left** heading **075**

At **10.0** DME **ORD** turn **Auto** and track directly to **ORDEC** VOR

Track to **ORDEC** and as flight planned

D9R to ORDEC



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Do not climb above **15000** until crossed **360** radial **DPA** VOR

Reach **9000** FT or above by **15.0** DME **ORD**

Reach **12000** FT or above by **25.0** DME **ORD**

At **1600** FT turn **Left** and track directly to **ORD601** VOR

At **0.1** DME **ORD601** turn **Auto** and track directly to **ORD589** VOR

At **0.1** DME **ORD589** turn **Auto** and track directly to **ORD590** VOR

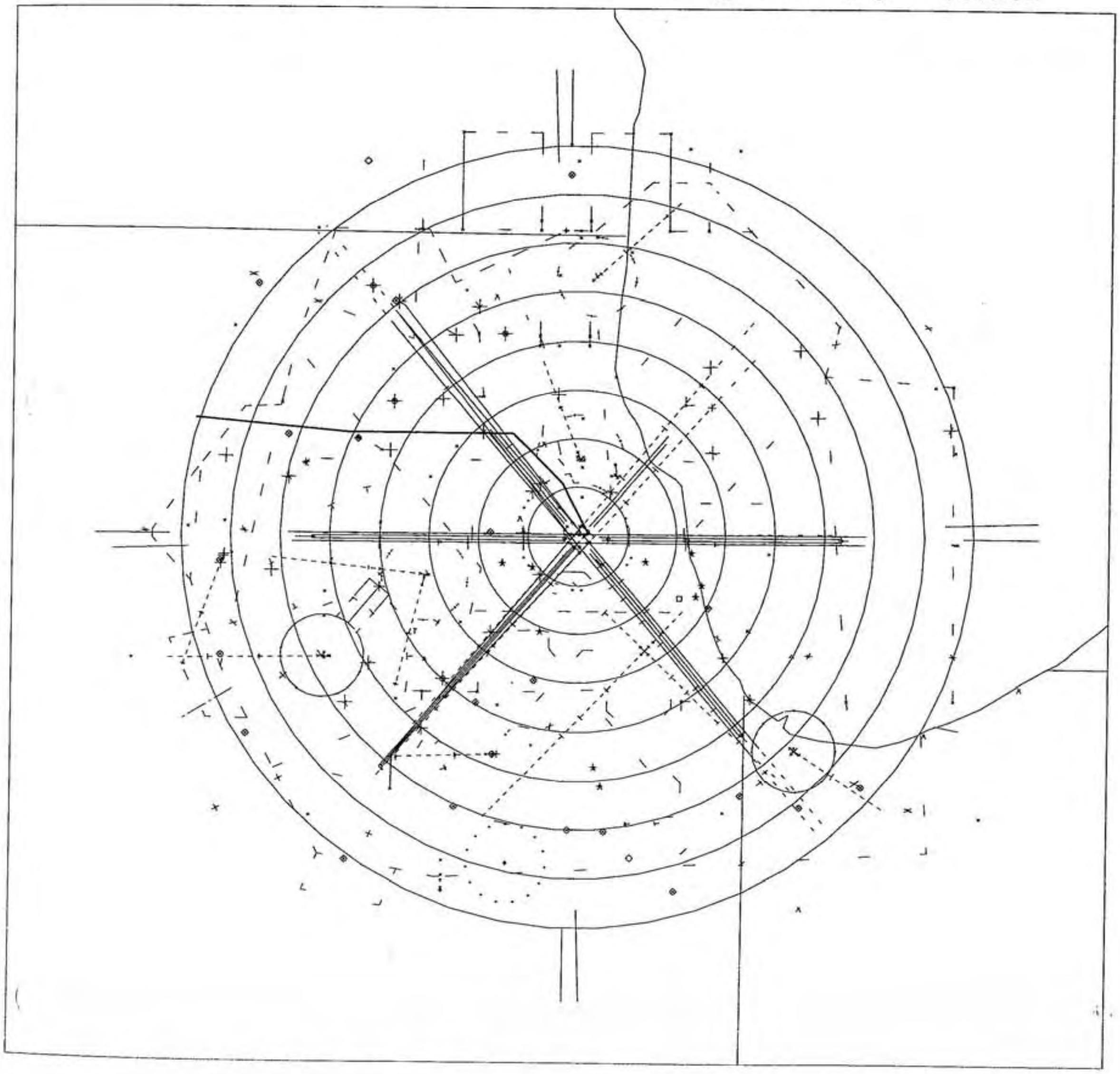
At **0.1** DME **ORD590** turn **Auto** and track directly to **ORDWA2** VOR

Track to **ORDWA2** and as flight planned

09R to ORDWA2

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

09R to ORDWA2



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H ☑ M ☑ L ☑ Tprop: H ☐ M ☐ L ☐ Piston: A ☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Do not climb above **15000** until crossed **360** radial **DPA** VOR

Reach **9000** FT or above by **15.0** DME **ORD**

Reach **12000** FT or above by **25.0** DME **ORD**

At **1600** FT turn **Left** and track directly to **ORD601** VOR

At **0.1** DME **ORD601** turn **Auto** and track directly to **ORD589** VOR

At **0.1** DME **ORD589** turn **Auto** and heading **270**

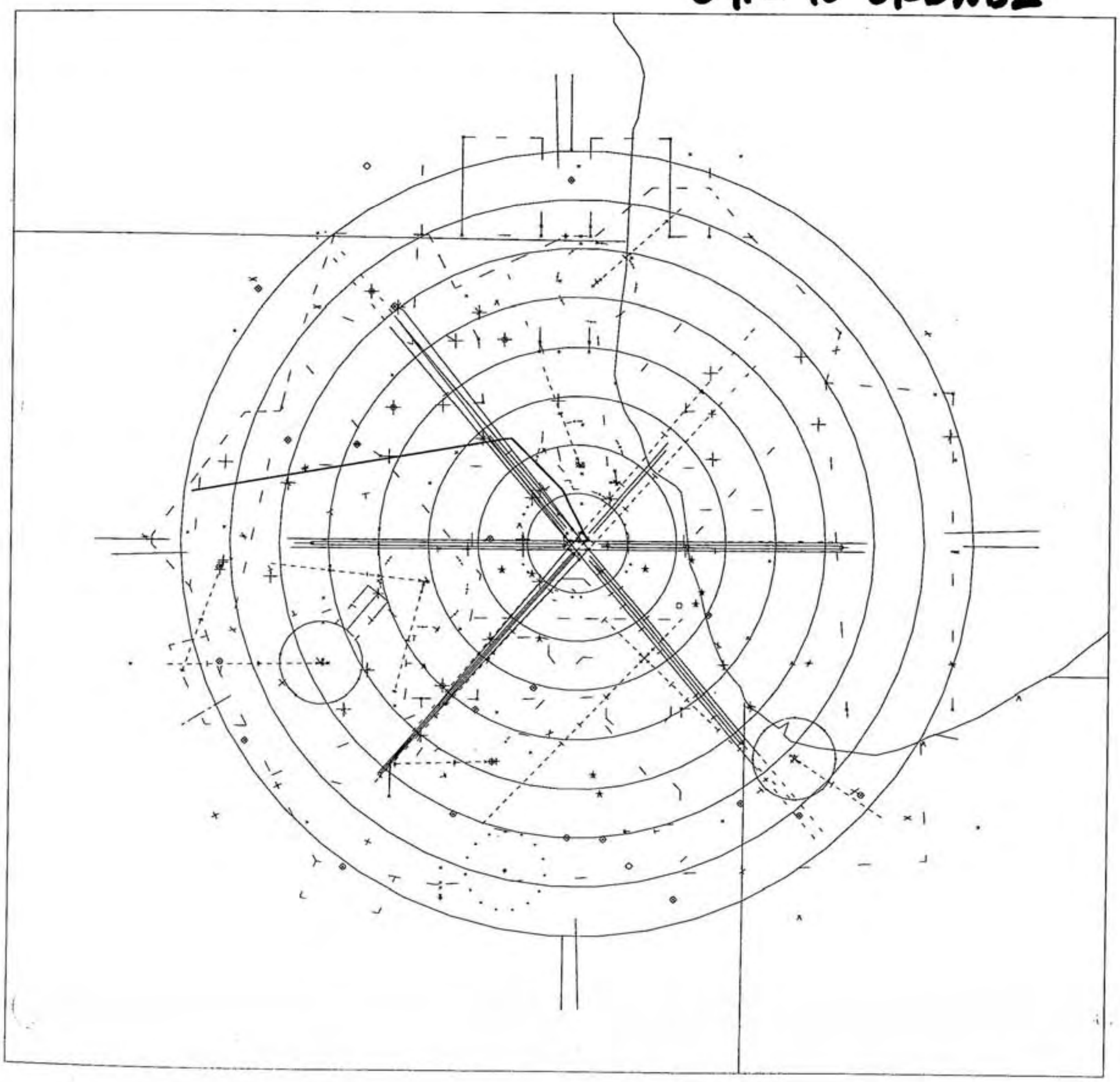
At **11500** FT turn **Auto** and track directly to **ORDWB2** VOR

Track to **ORDWB2** and as flight planned

09 R to ORDWB2

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

09R to ORDWB2



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **8.0** DME **ORD**

At **1600** FT turn **Left** and track directly to **ORD600** VOR

At **0.1** DME **ORD600** turn **Auto** and track directly to **ORD241** VOR

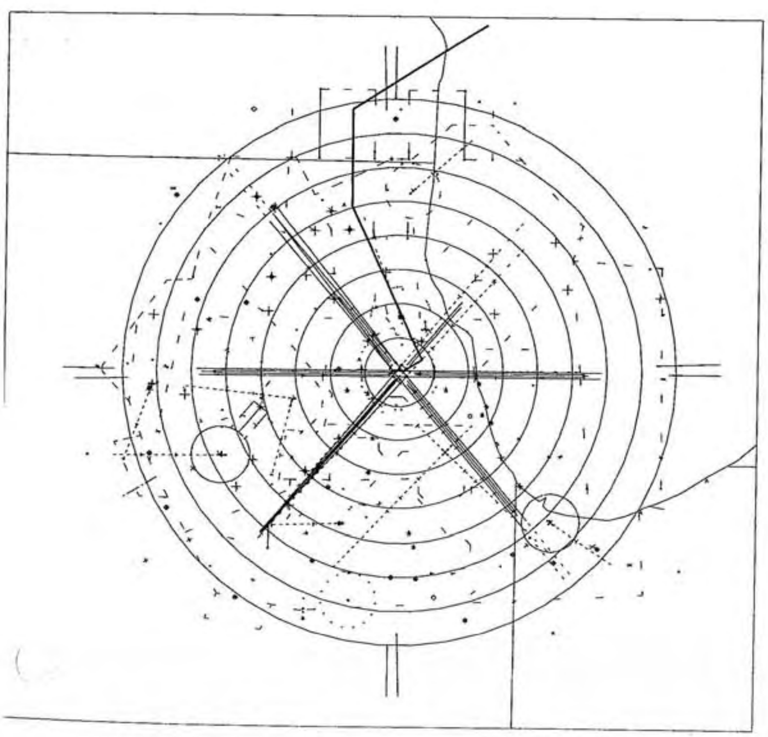
At **0.1** DME **ORD241** turn **Auto** and track directly to **ORD591** VOR

At **0.1** DME **ORD591** turn **Auto** and heading **003**

When crossing **240** radial **PETTY** VOR turn **Auto** and track directly to **PETTY** VOR

Track to **PETTY** and as flight planned

09R to PETTY



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☑ M☑ L☑ Piston: A☑
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **10.0** DME **ORD**

Reach **4000** FT or above by **8.0** DME **ORD**

At **2000** FT turn **Auto** and track directly to **ORD600** VOR

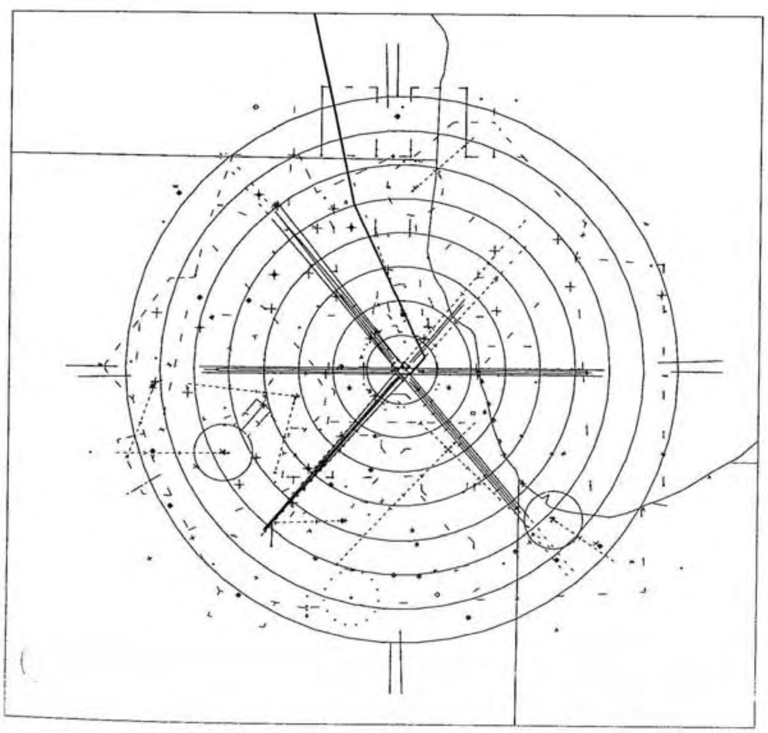
At **0.1** DME **ORD600** turn **Auto** and track directly to **ORD241** VOR

At **0.1** DME **ORD241** turn **Auto** and track directly to **ORD591** VOR

At **0.1** DME **ORD591** turn **Auto** and track directly to **BAE** VOR

Track to **BAE** and as flight planned

10L to BAE



Project: KORD_EIS_EXP33 Printed by taam

Group:	Jet:	H ☑	M ☑	L ☑	Tprop:	H ☑	M ☑	L ☑	Piston:	A ☑
Display:		H	M	L		H	M	L		A

Maintain runway heading

Do not climb above **5000** until **15.0** DME **ORD**

Do not climb above **13000** until **35.0** DME **ORD**

Reach **4000** FT or above by **8.0** DME **ORD**

At **3000** FT turn **Auto** and track directly to **ORD600** VOR

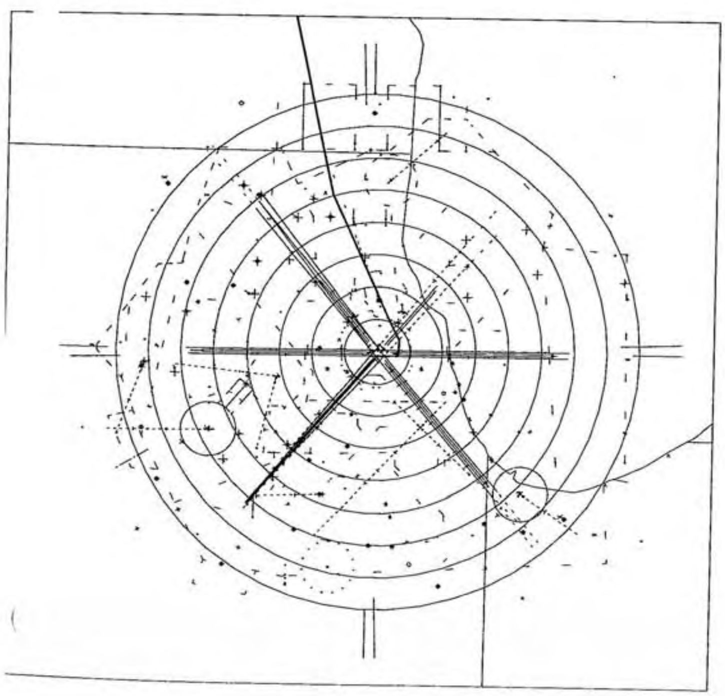
At **0.1** DME **ORD600** turn **Auto** and track directly to **ORD241** VOR

At **0.1** DME **ORD241** turn **Auto** and track directly to **ORD591** VOR

At **0.1** DME **ORD591** turn **Auto** and track directly to **BAE** VOR

Track to **BAE** and as flight planned

10L to BAE



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H□ M□ L□ Piston: A□
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **10.0** DME **ORD**

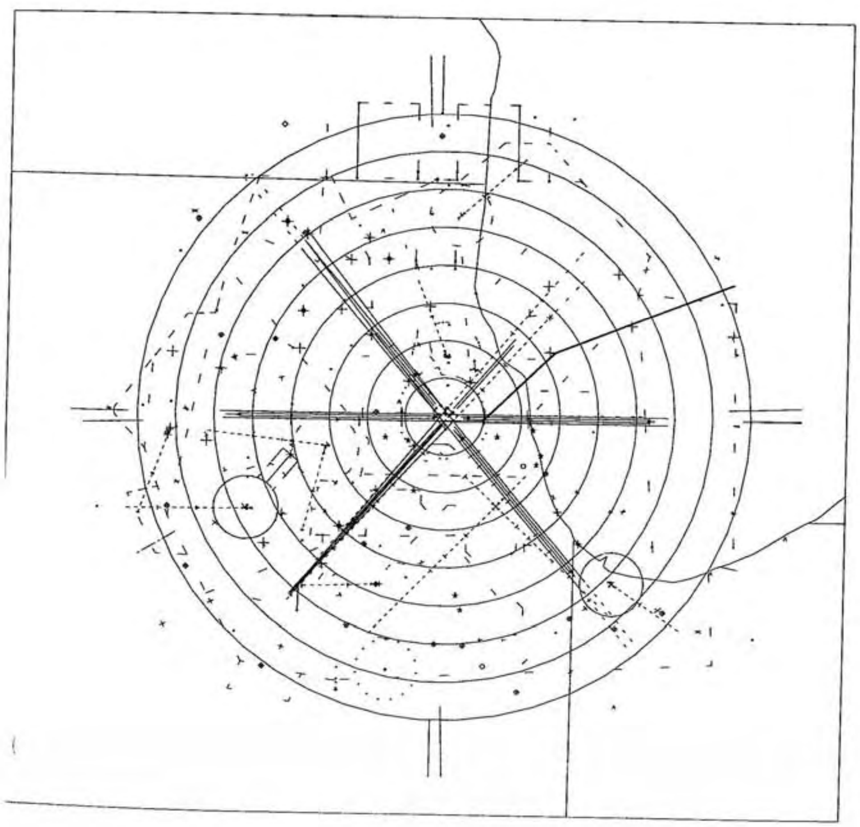
At **5.0** DME **ORD** turn **Auto** and track directly to **ORD365** VOR

At **0.1** DME **ORD365** turn **Auto** and track directly to **ORDEA** VOR

At **0.1** DME **ORDEA** turn **Auto** and track directly to **ORDEA** VOR

Track to **ORDEA** and as flight planned

10L to ORDEA



Project: KORD_EIS_EXP33

Printed by taam

Group:	Jet:	H☑	M☑	L☑	Tprop:	H☐	M☐	L☐	Piston: A☐
Display:		H	M	L		H	M	L	A

Maintain runway heading

Do not climb above **5000** until **10.0** DME **ORD**

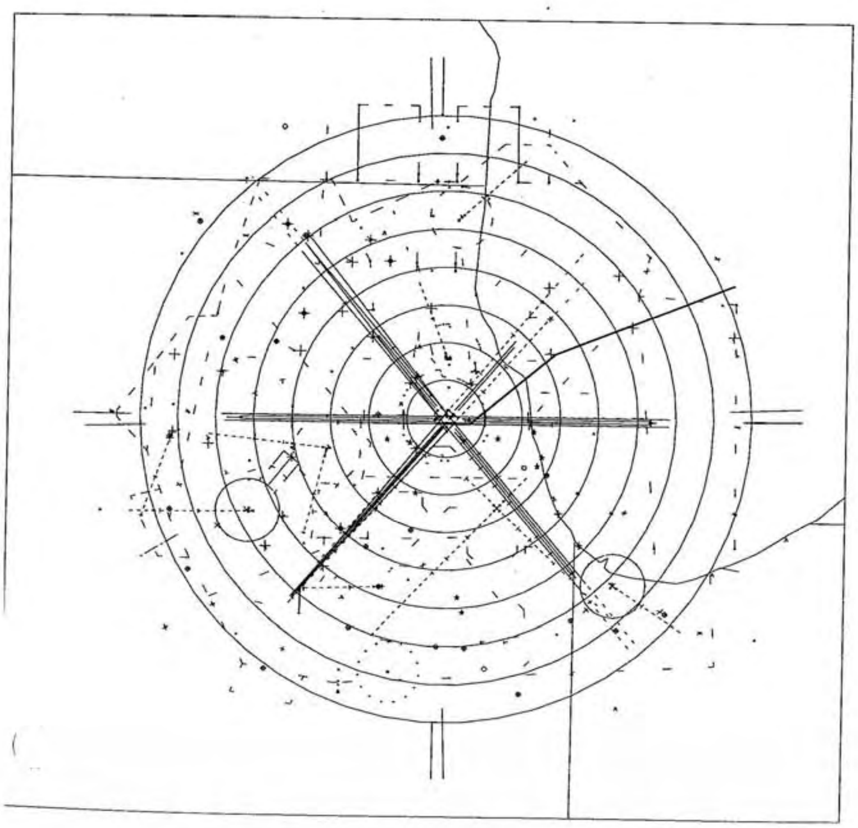
At **3000** FT turn **Auto** and track directly to **ORD365** VOR

At **0.1** DME **ORD365** turn **Auto** and track directly to **ORDEA** VOR

At **0.1** DME **ORDEA** turn **Auto** and track directly to **ORDEA** VOR

Track to **ORDEA** and as flight planned

10L to ORDEA



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

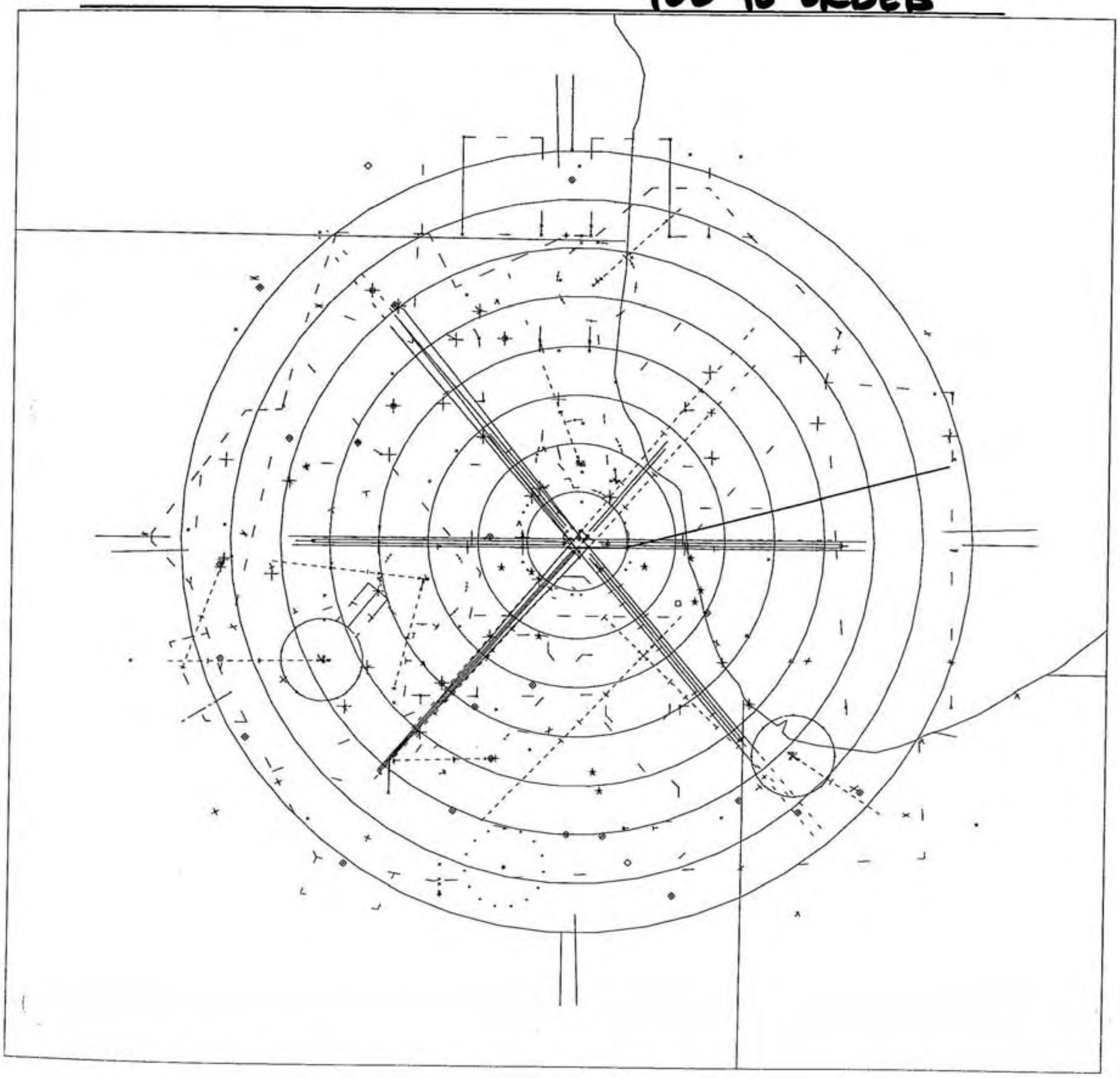
Do not climb above **5000** until **6.0** DME **ORD**

Reach **3000** FT or above by **5.0** DME **ORD**

At **5.0** DME **ORD** turn **Auto** and track directly to **ORDEB** VOR

Track to **ORDEB** and as flight planned

10L to ORDEB



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

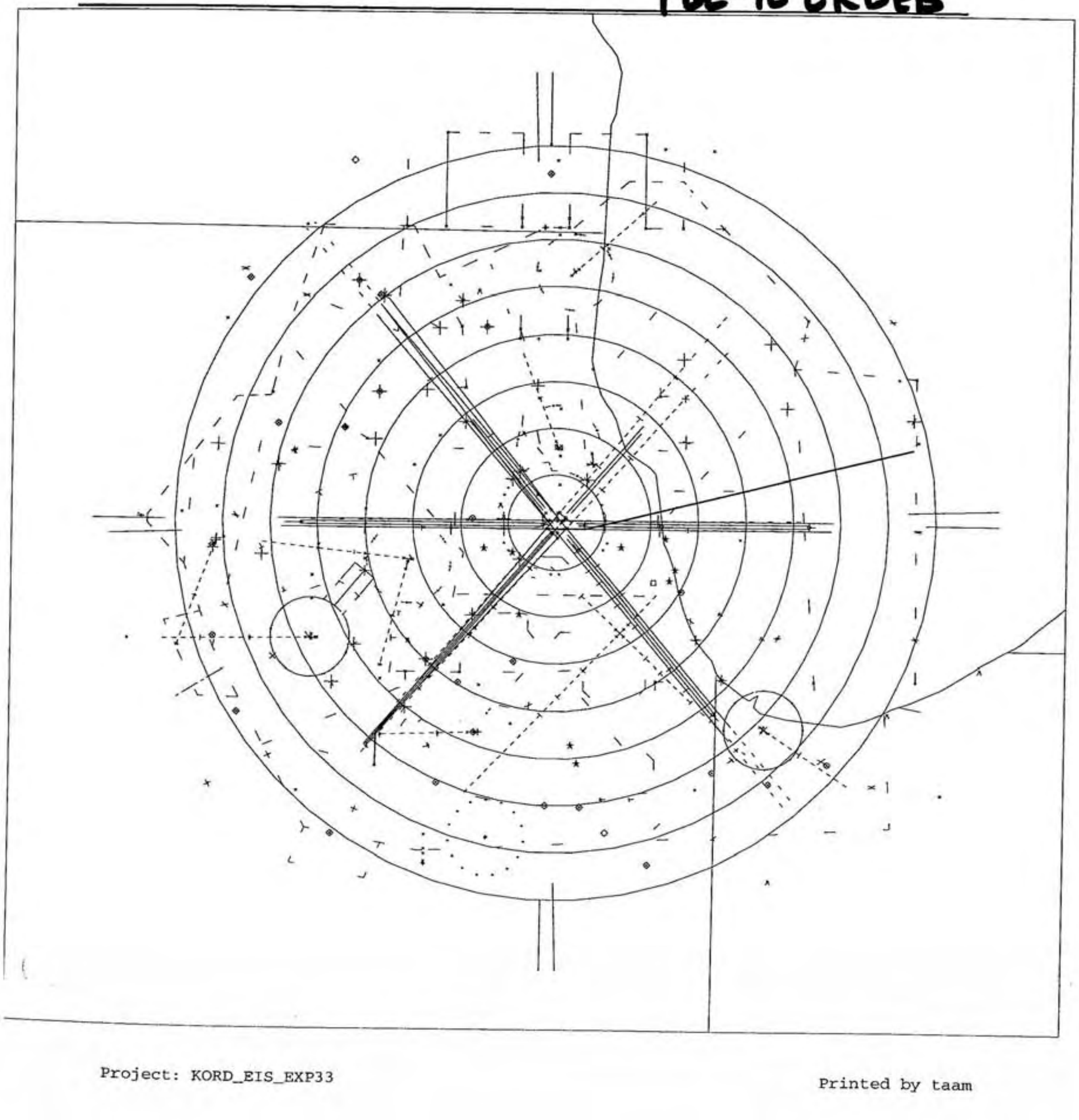
Do not climb above **5000** until **6.0** DME **ORD**

Reach **3000** FT or above by **5.0** DME **ORD**

At **3000** FT turn **Auto** and track directly to **ORDEB** VOR

Track to **ORDEB** and as flight planned

10L to ORDEB



Project: KORD_EIS_EXP33 Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

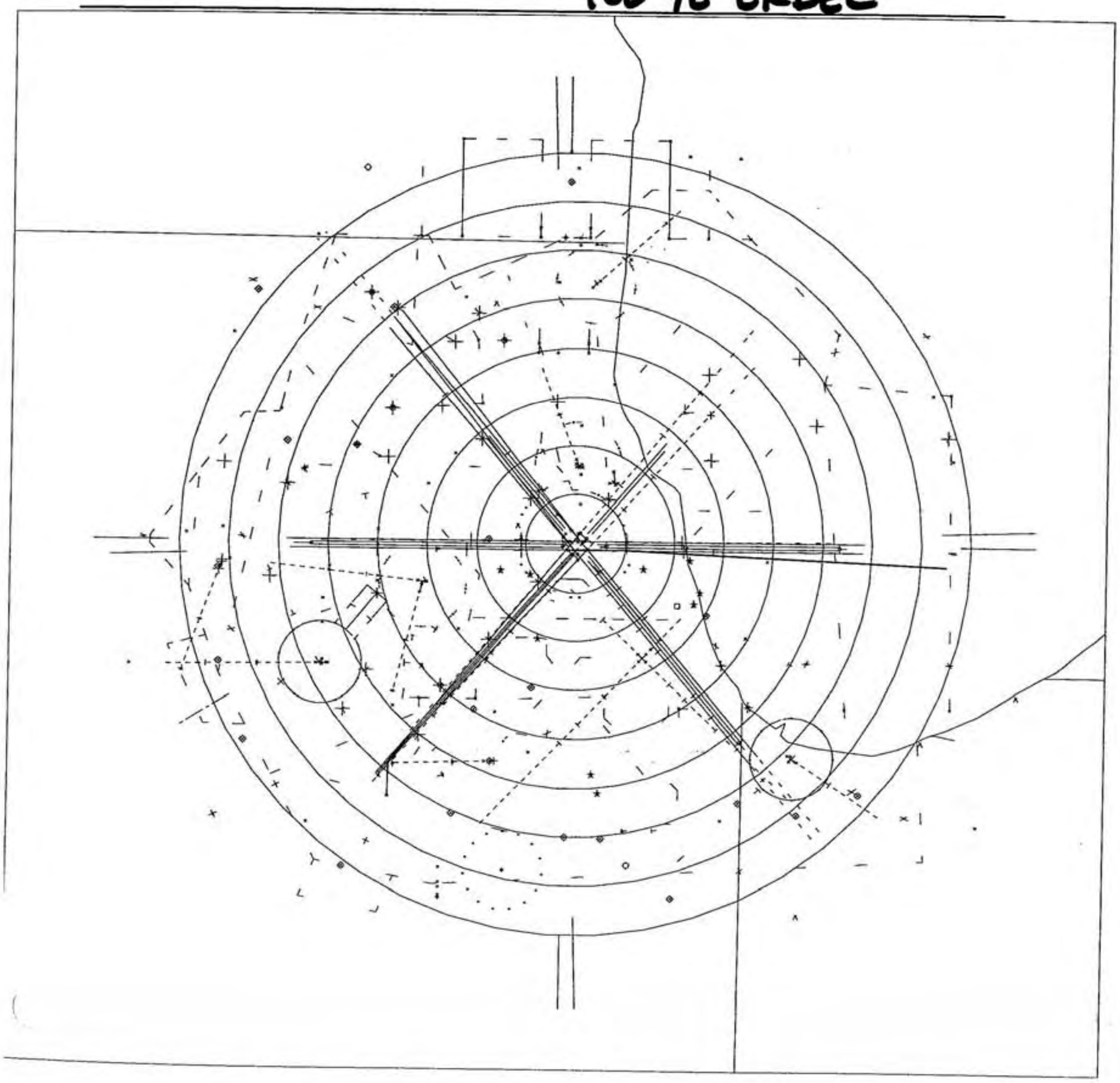
Do not climb above **5000** until **6.0** DME **ORD**

Reach **3000** FT or above by **5.0** DME **ORD**

At **5.0** DME **ORD** turn **Auto** and track directly to **ORDEC** VOR

Track to **ORDEC** and as flight planned

10L to ORDEC



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

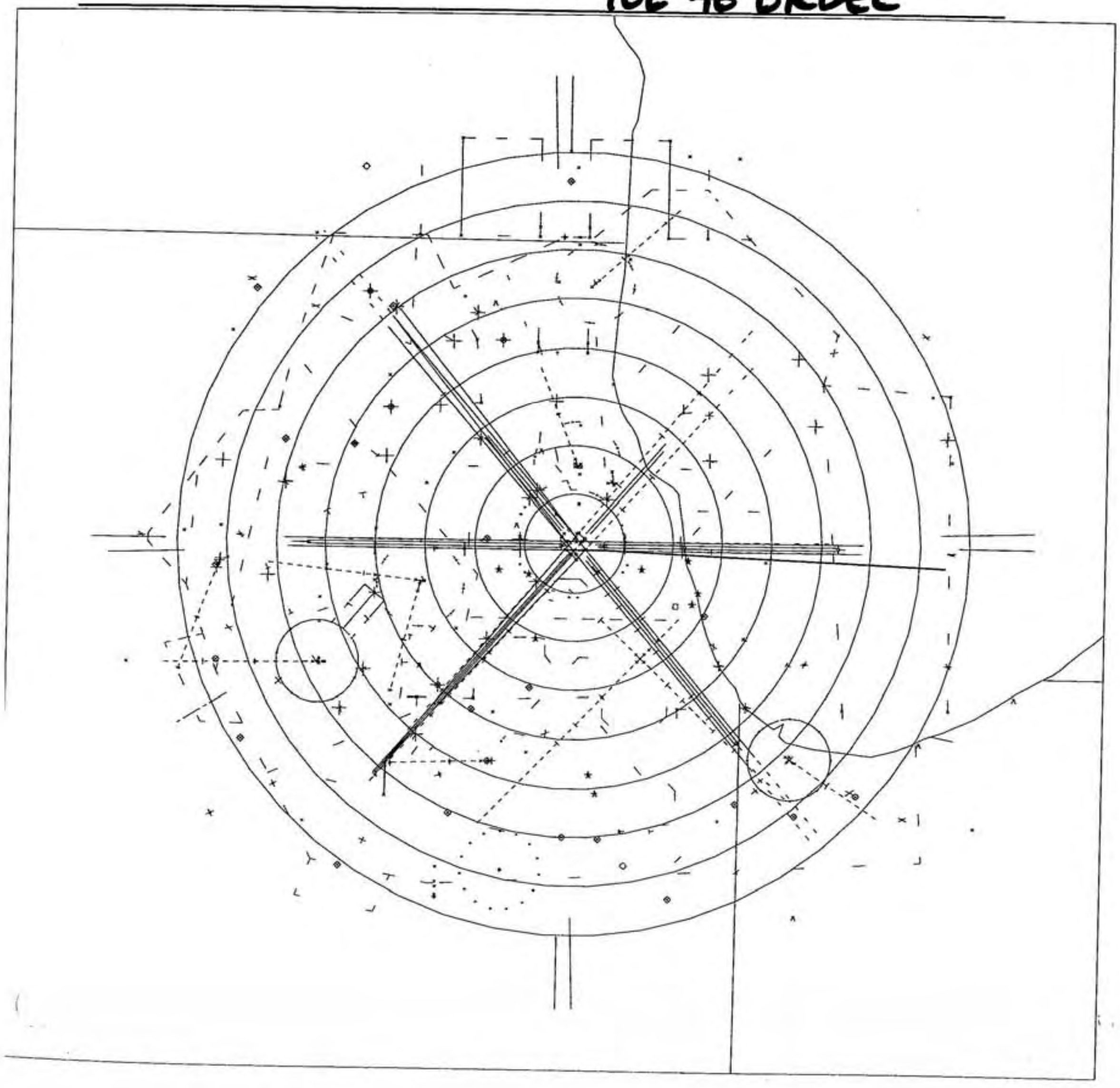
Do not climb above **5000** until **6.0** DME **ORD**

Reach **3000** FT or above by **5.0** DME **ORD**

At **3000** FT turn **Auto** and track directly to **ORDEB** VOR

Track to **ORDEC** and as flight planned

16L to ORDEC



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

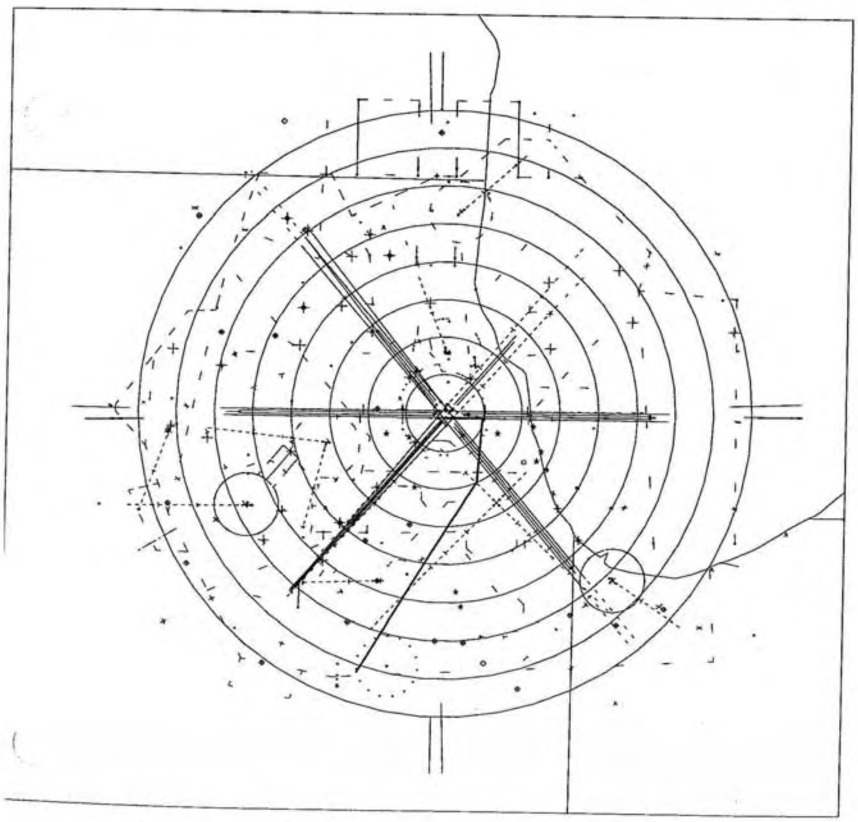
Do not climb above **5000** until **8.0** DME **ORD**

Reach **4000** FT or above by **8.0** DME **ORD**

At **5.0** DME **ORD** turn **Auto** and track directly to **ORD597** VOR

At **0.1** DME **ORD597** turn **Auto** and track directly to **ORDSA** VOR

Track to **ORDSA** and as flight planned 10L to ORDSA



Project: KORD_EIS_EXP33 Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Reach **4000** FT or above by **8.0** DME **ORD**

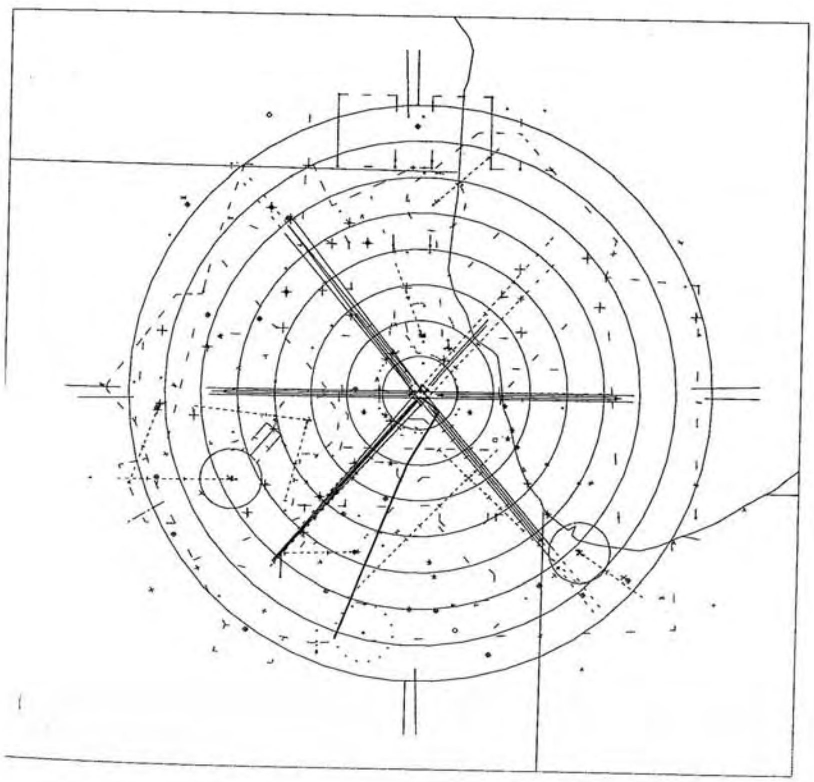
At **1200** FT turn **Auto** heading **130**

At **4.0** DME **ORD** turn **Auto** and track directly to **ORD596** VOR

At **0.1** DME **ORD596** turn **Auto** and track directly to **ORDSA** VOR

Track to **ORDSA** and as flight planned

10L to ORDSA



Project: KORD_EIS_EXP33

Printed by taam

Group:	Jet:	H ☑	M ☑	L ☑	Tprop:	H □	M □	L □	Piston:	A □
Display:		H	M	L		H	M	L		A

Maintain runway heading

Do not climb above **5000** until **8.0** DME **ORD**

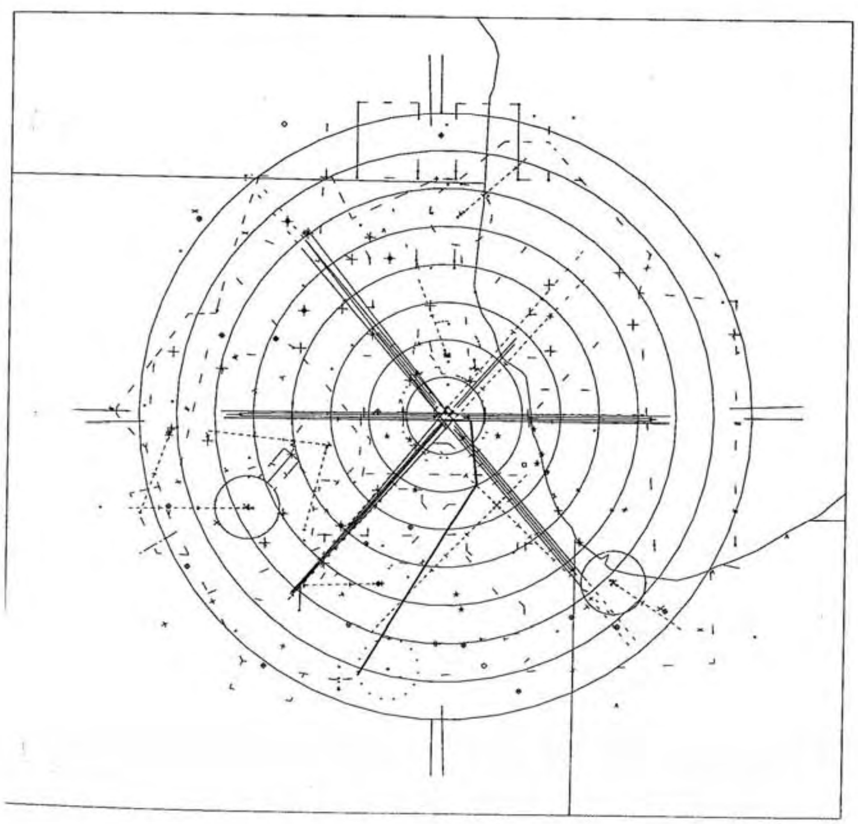
Reach **4000** FT or above by **8.0** DME **ORD**

At **3000** FT turn **Auto** and track directly to **ORD597** VOR

At **0.1** DME **ORD597** turn **Auto** and track directly to **ORDSA** VOR

Track to **ORDSA** and as flight planned

10L to ORDSA



Project: KORD_EIS_EXP33

Printed by taam

Group:	Jet:	H ☑	M ☑	L ☑	Tprop:	H □	M □	L □	Piston:	A □
Display:		H	M	L		H	M	L		A

Maintain runway heading

Do not climb above **5000** until **8.0** DME **ORD**

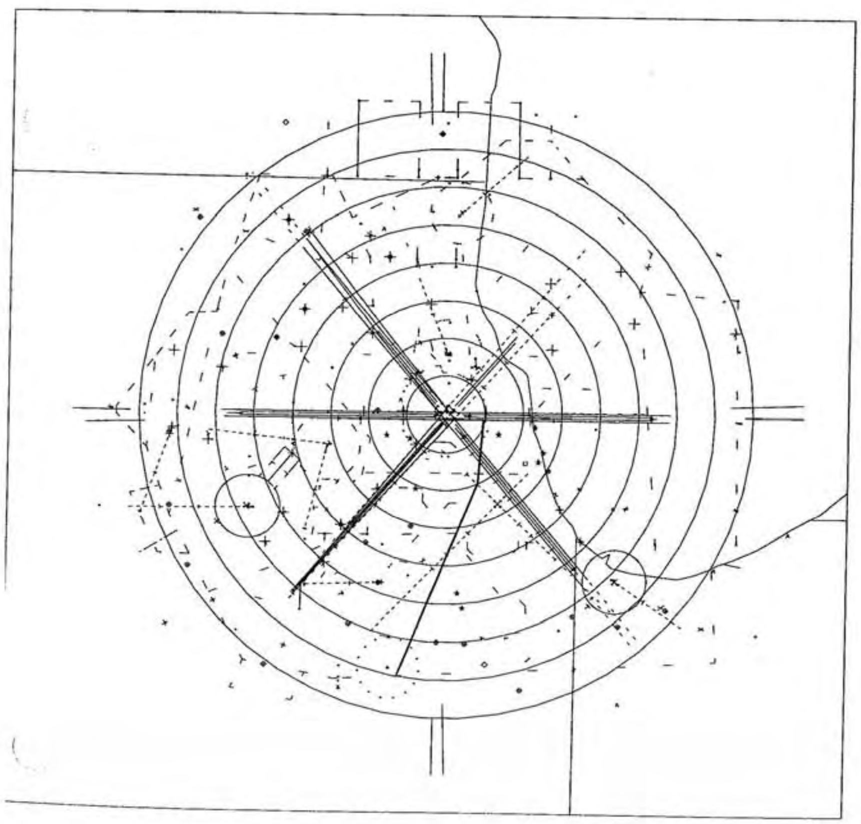
Reach **4000** FT or above by **8.0** DME **ORD**

At **5.0** DME **ORD** turn **Auto** and track directly to **ORD597** VOR

At **0.1** DME **ORD597** turn **Auto** and track directly to **ORDSB** VOR

Track to **ORDSB** and as flight planned

10L to ORDSB



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Reach **4000** FT or above by **8.0** DME **ORD**

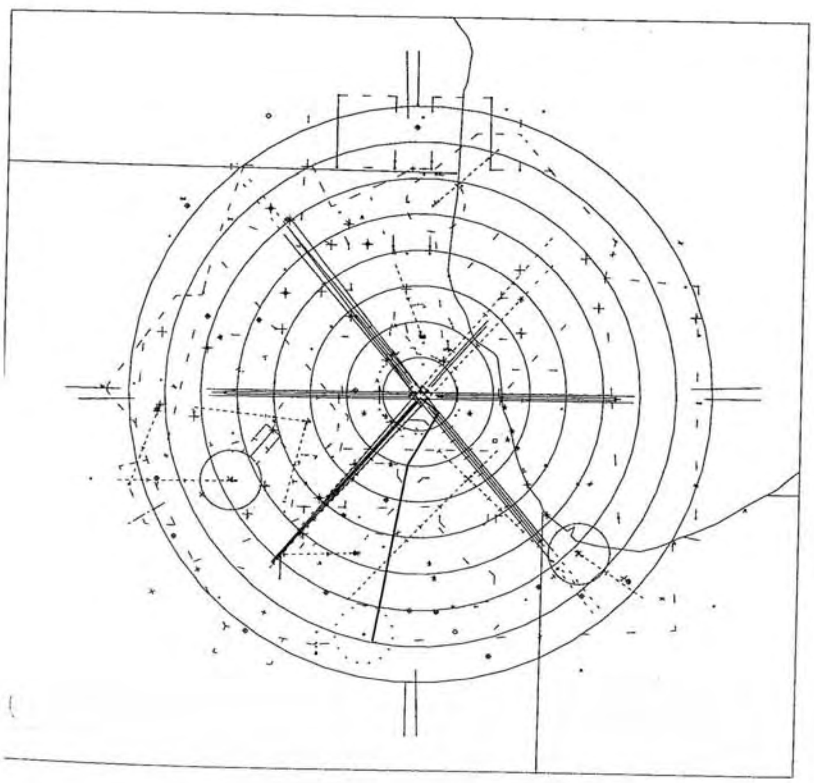
At **1200** FT turn **Auto** heading **130**

At **4.0** DME **ORD** turn **Auto** and track directly to **ORD596** VOR

At **0.1** DME **ORD596** turn **Auto** and track directly to **ORDSB** VOR

Track to **ORDSB** and as flight planned

10L to ORDSB



Project: KORD_EIS_EXP33

Printed by taam

Group:	Jet:	H ☑	M ☑	L ☑	Tprop:	H ☐	M ☐	L ☐	Piston:	A ☐
Display:		H	M	L		H	M	L		A

Maintain runway heading

Do not climb above **5000** until **8.0** DME **ORD**

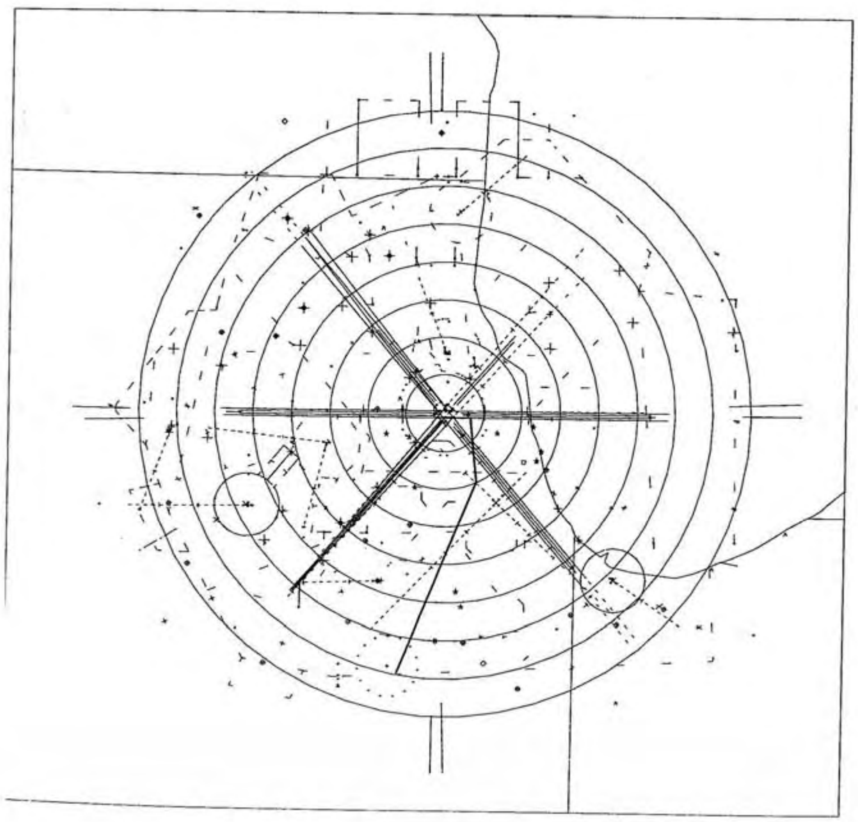
Reach **4000** FT or above by **8.0** DME **ORD**

At **3000** FT turn **Auto** and track directly to **ORD597** VOR

At **0.1** DME **ORD597** turn **Auto** and track directly to **ORDSB** VOR

Track to **ORDSB** and as flight planned

10L to ORDSB



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☑ M☑ L☑ Piston: A☑
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **8.0** DME **ORD**

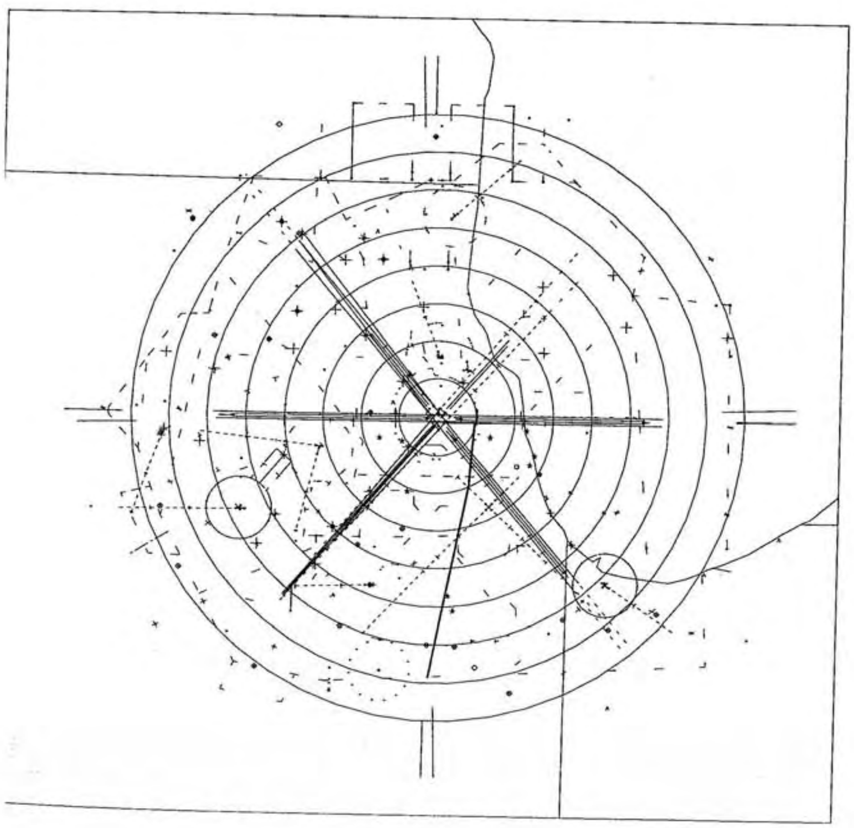
Reach **4000** FT or above by **8.0** DME **ORD**

At **5.0** DME **ORD** turn **Auto** and track directly to **ORD597** VOR

At **0.1** DME **ORD597** turn **Auto** and track directly to **ORDSC** VOR

Track to **ORDSC** and as flight planned

10L to ORDSC



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Reach **4000** FT or above by **8.0** DME **ORD**

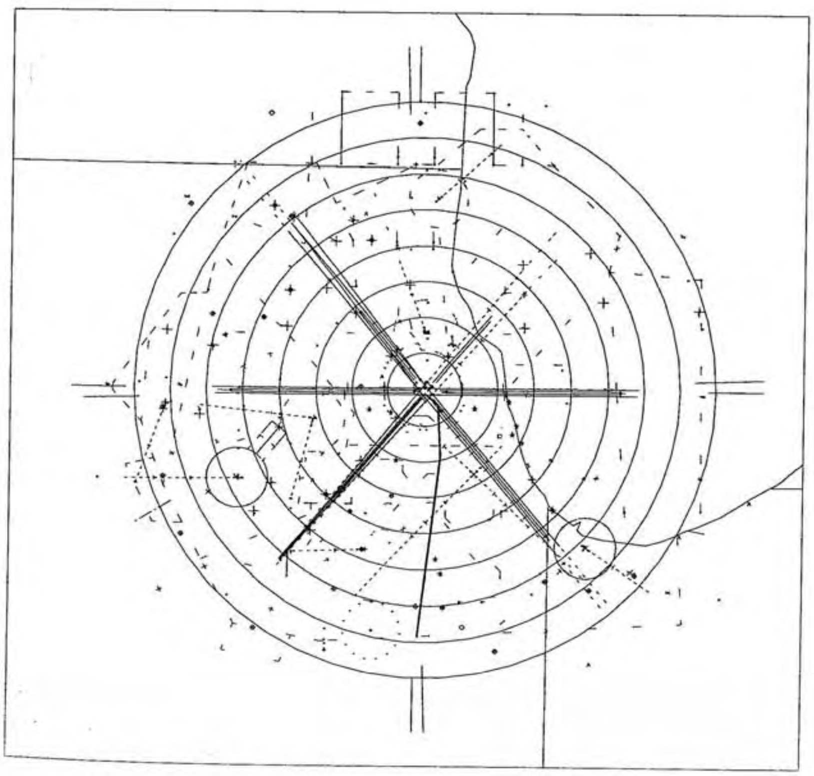
At **1200** FT turn **Auto** and track directly to **ORD593** VOR

At **0.1** DME **ORD593** turn **Auto** and heading **180**

At **10.0** DME **ORD** turn **Auto** and track directly to **ORDSC** VOR

Track to **ORDSC** and as flight planned

10L to ORDSC



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **4000** until **10.0** DME **ORD**

Do not climb above **11000** until **35.0** DME **ORD**

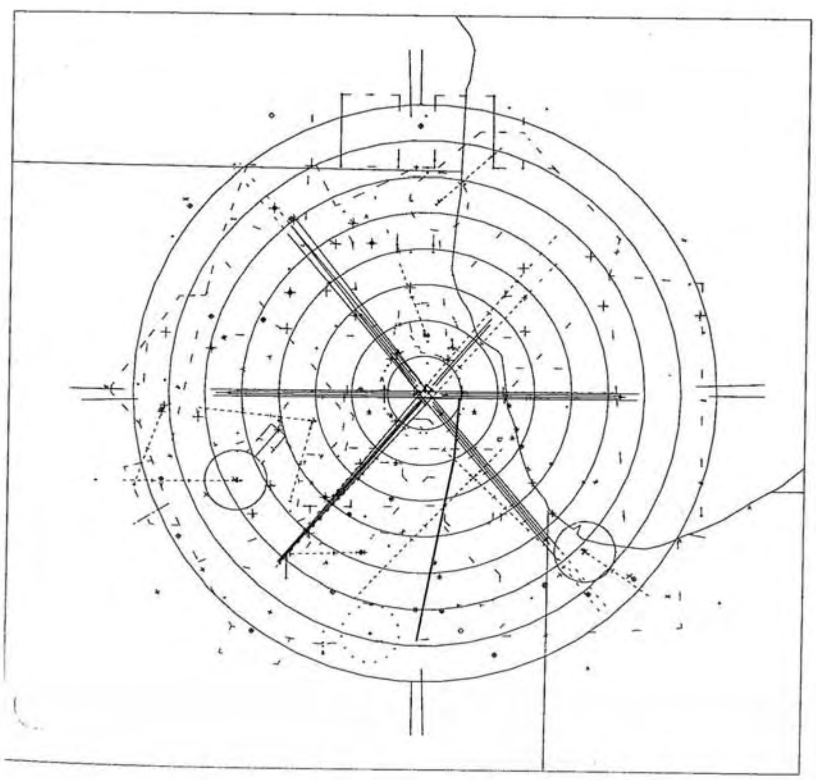
Reach **4000** FT or above by **8.0** DME **ORD**

At **5.0** DME **ORD** turn **Auto** and track directly to **ORD597** VOR

At **0.1** DME **ORD597** turn **Auto** and track directly to **ORDSC** VOR

Track to **ORDSC** and as flight planned

10L to ORDSC



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H ☑ M ☑ L ☑ Tprop: H ☑ M ☑ L ☑ Piston: A ☑
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **8.0** DME **ORD**

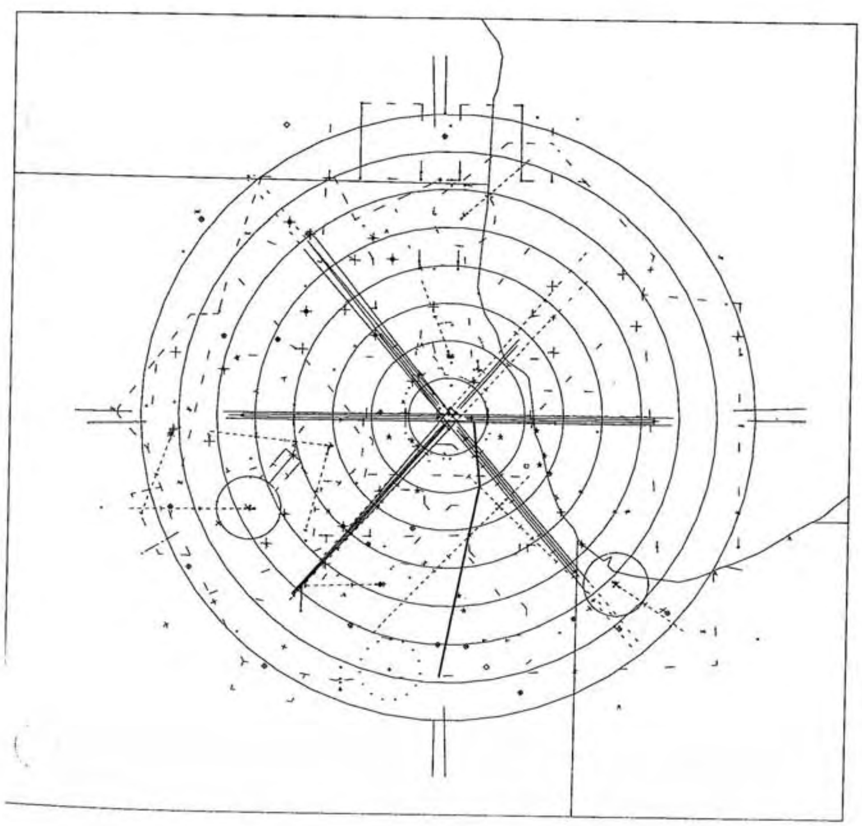
Reach **4000** FT or above by **8.0** DME **ORD**

At **3000** FT turn **Auto** and track directly to **ORD597** VOR

At **0.1** DME **ORD597** turn **Auto** and track directly to **ORDSC** VOR

Track to **ORDSC** and as flight planned

10L to ORDSC



Project: KORD_EIS_EXP33

Printed by taam

Group:	Jet:	H ☑	M ☑	L ☑	Tprop:	H □	M □	L □	Piston: A □
Display:		H	M	L		H	M	L	A

Maintain runway heading

Do not climb above **5000** until **10.0** DME **ORD**

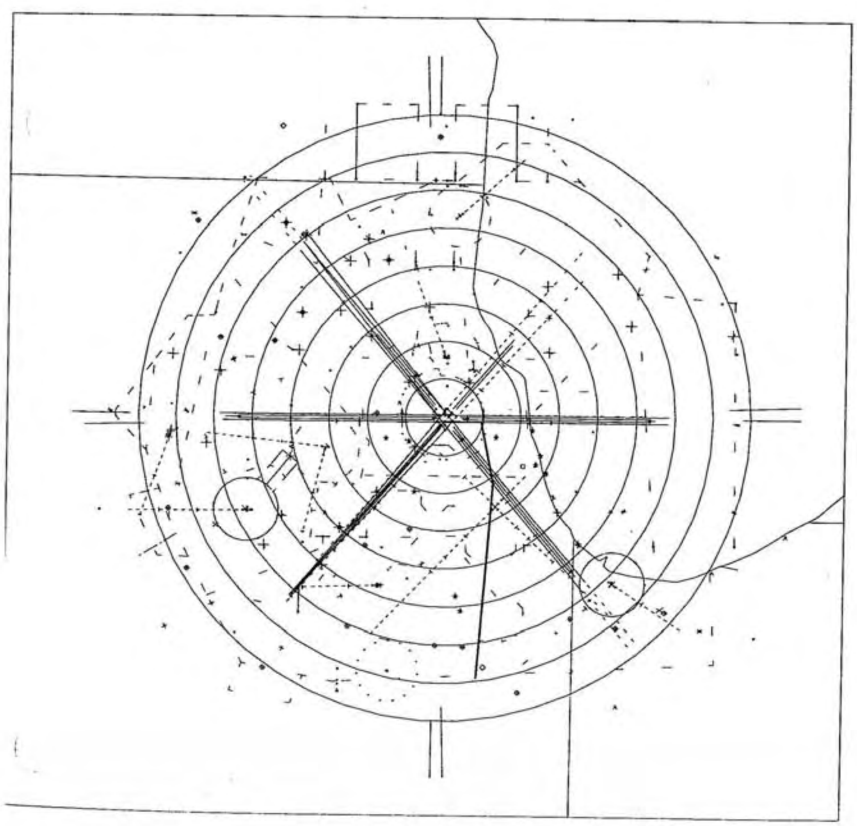
Reach **4000** FT or above by **8.0** DME **ORD**

At **5.0** DME **ORD** turn **Auto** and track directly to **KITTS** VOR

At **0.1** DME **KITTS** turn **Auto** and track directly to **ORDSD** VOR

Track to **ORDSD** and as flight planned

10L to ORDSD



Project: KORD_EIS_EXP33

Printed by taam

Group:	Jet:	H ☑	M ☑	L ☑	Tprop:	H ☐	M ☐	L ☐	Piston:	A ☐
Display:		H	M	L		H	M	L		A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

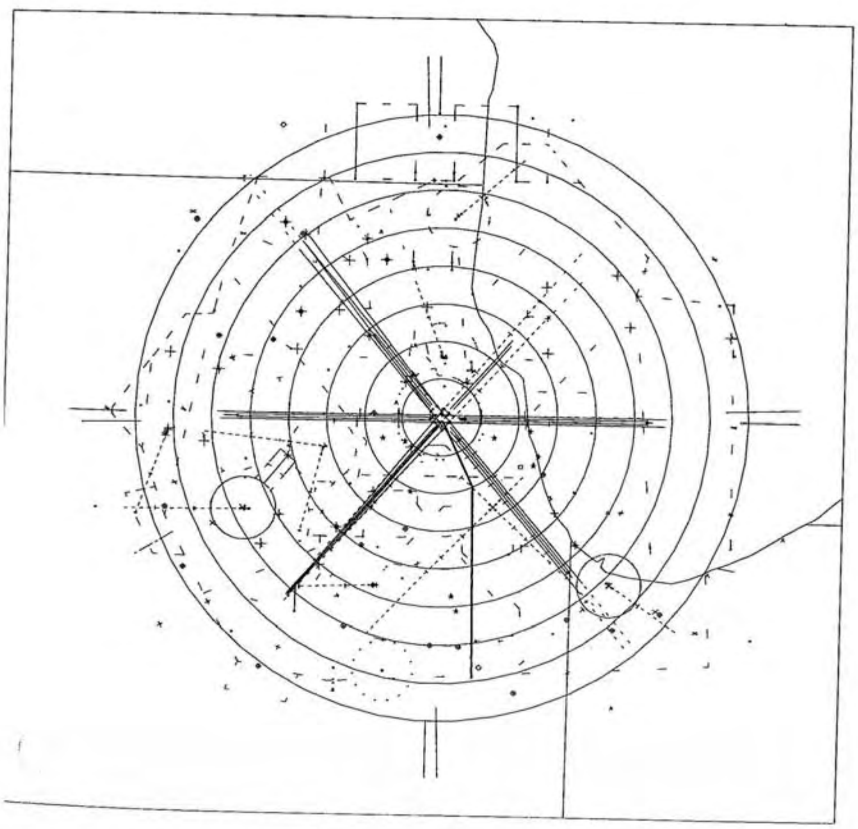
Reach **4000** FT or above by **8.0** DME **ORD**

At **1200** FT turn **Auto** and track directly to **ORD597** VOR

At **0.1** DME **ORD597** turn **Auto** and track directly to **ORDSD** VOR

Track to **ORDSD** and as flight planned

10L to ORDSD



Project: KORD_EIS_EXP33

Printed by taam

Group:	Jet:	H ☑	M ☑	L ☑	Tprop:	H ☐	M ☐	L ☐	Piston:	A ☐
Display:		H	M	L		H	M	L		A

Maintain runway heading

Do not climb above **5000** until **10.0** DME **ORD**

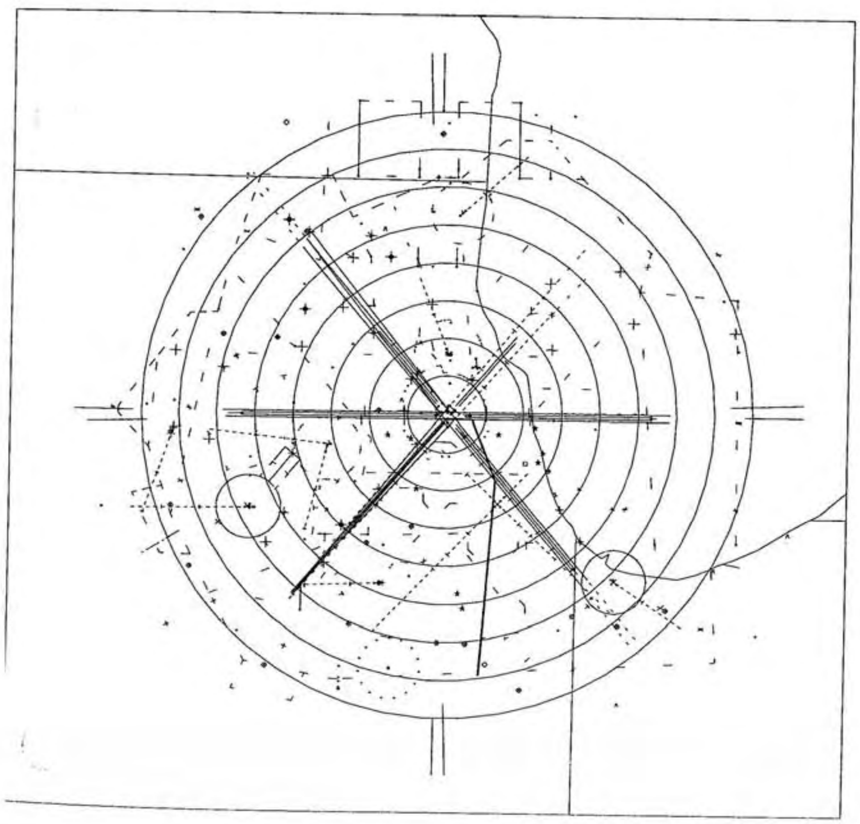
Reach **4000** FT or above by **8.0** DME **ORD**

At **3000** FT turn **Auto** and track directly to **KITTS** VOR

At **0.1** DME **KITTS** turn **Auto** and track directly to **ORDSD** VOR

Track to **ORDSD** and as flight planned

10L to ORPSD



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H ☑ M ☑ L ☑ Tprop: H ☐ M ☐ L ☐ Piston: A ☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **10.0** DME **ORD**

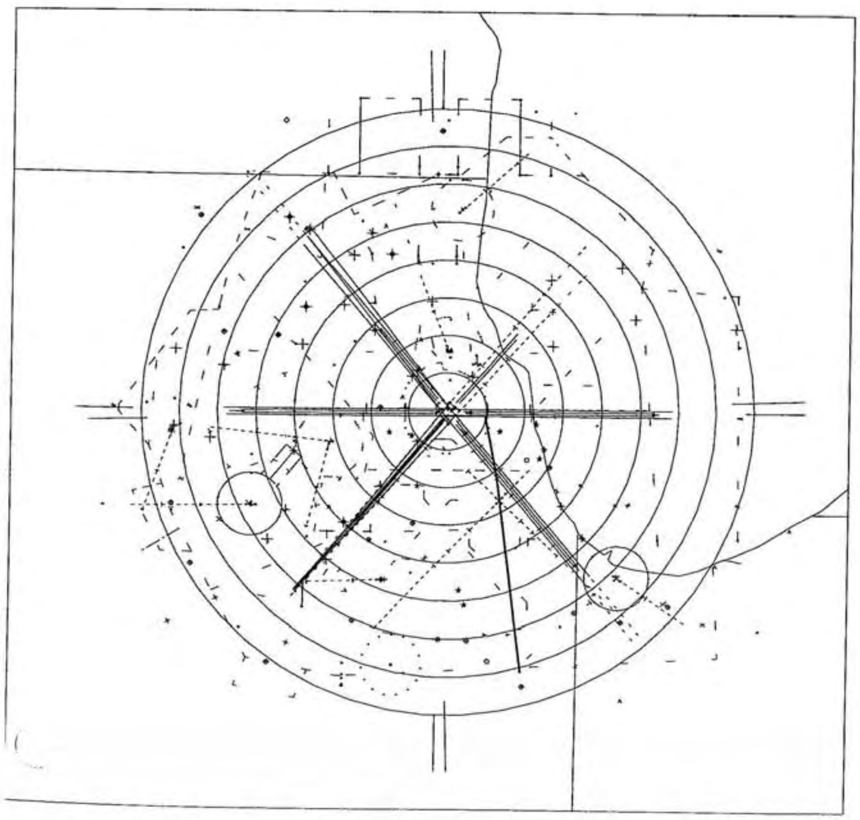
Reach **4000** FT or above by **8.0** DME **ORD**

At **5.0** DME **ORD** turn **Auto** and track directly to **KITTS** VOR

At **0.1** DME **KITTS** turn **Auto** and track directly to **ORDSE** VOR

Track to **ORDSE** and as flight planned

10L to ORDSE



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

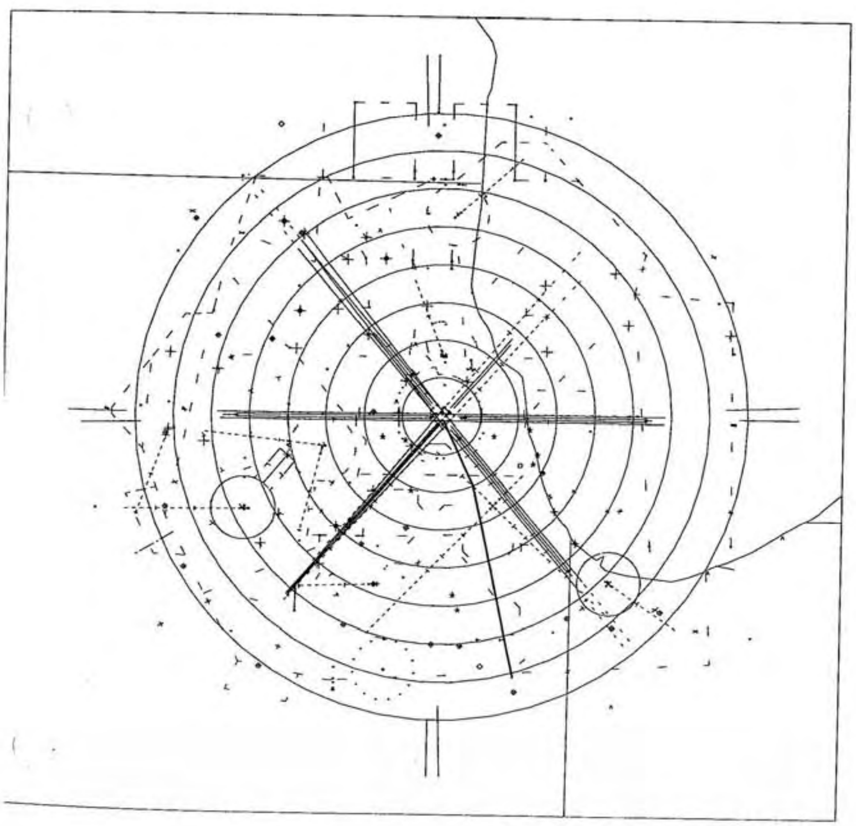
Reach **4000** FT or above by **8.0** DME **ORD**

At **1200** FT turn **Auto** and track directly to **ORD597** VOR

At **0.1** DME **ORD597** turn **Auto** and track directly to **ORDSE** VOR

Track to **ORDSE** and as flight planned

10L to ORDSE



Project: KORD_EIS_EXP33

Printed by taam

Group:	Jet:	H ☐	M ☐	L ☐	Tprop:	H ☑	M ☑	L ☑	Piston: A ☑
Display:		H	M	L		H	M	L	A

Maintain runway heading

Do not climb above **4000** until **10.0** DME **ORD**

Do not climb above **5000** until **20.0** DME **ORD**

Do not climb above **11000** until **35.0** DME **ORD**

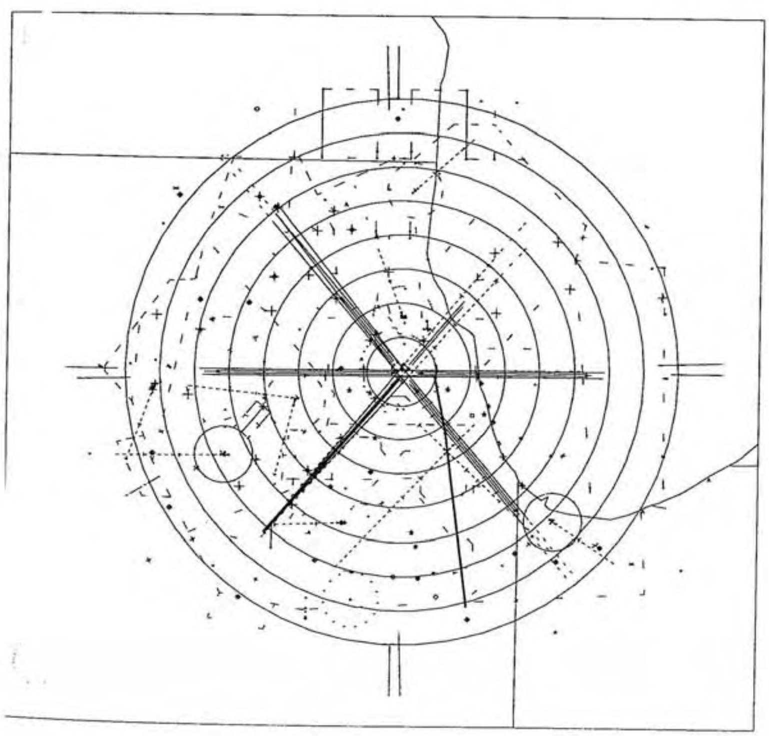
Reach **4000** FT or above by **8.0** DME **ORD**

At **5.0** DME **ORD** turn **Auto** and track directly to **KITTS** VOR

At **0.1** DME **KITTS** turn **Auto** and track directly to **ORDSE** VOR

Track to **ORDSE** and as flight planned

16L to ORDSE



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐

Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **10.0** DME **ORD**

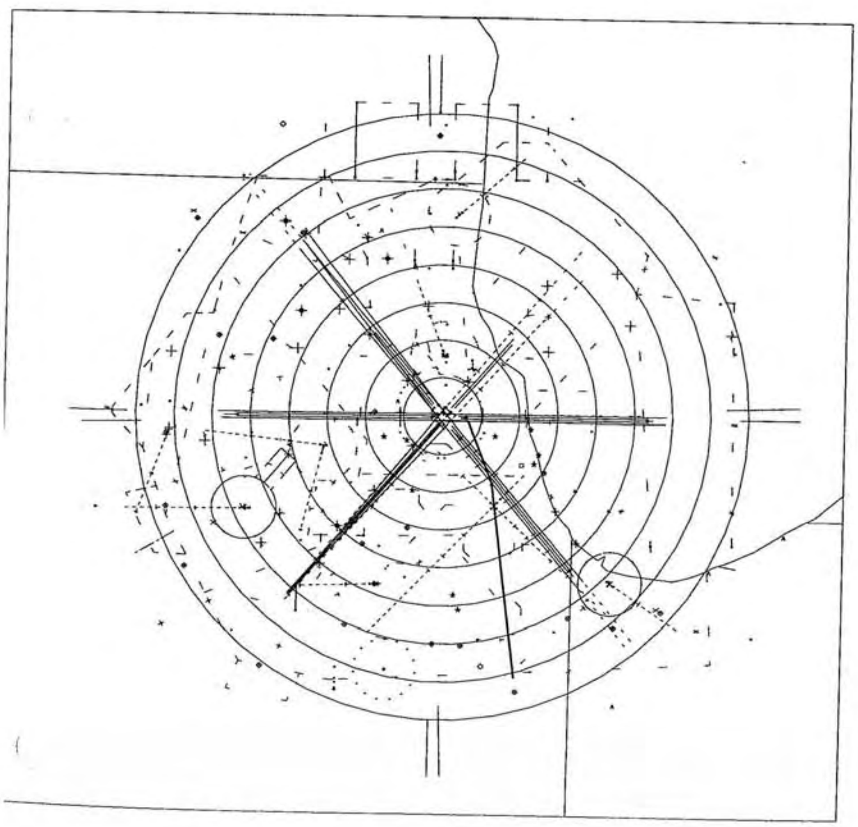
Reach **4000** FT or above by **8.0** DME **ORD**

At **3000** FT turn **Auto** and track directly to **KITTS** VOR

At **0.1** DME **KITTS** turn **Auto** and track directly to **ORDSE** VOR

Track to **ORDSE** and as flight planned

10L to ORDSE



Project: KORD_EIS_EXP33 Printed by taam

Group:	Jet:	H ☑	M ☑	L ☑	Tprop:	H ☑	M ☑	L ☑	Piston:	A ☑
Display:		H	M	L		H	M	L		A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Do not climb above **15000** until crossed **360** radial **DPA** VOR

Reach **9000** FT or above by **15.0** DME **ORD**

Reach **12000** FT or above by **25.0** DME **ORD**

At **1800** FT turn **Left** and track directly to **ORD601** VOR

At **0.1** DME **ORD601** turn **Auto** and track directly to **ORD589** VOR

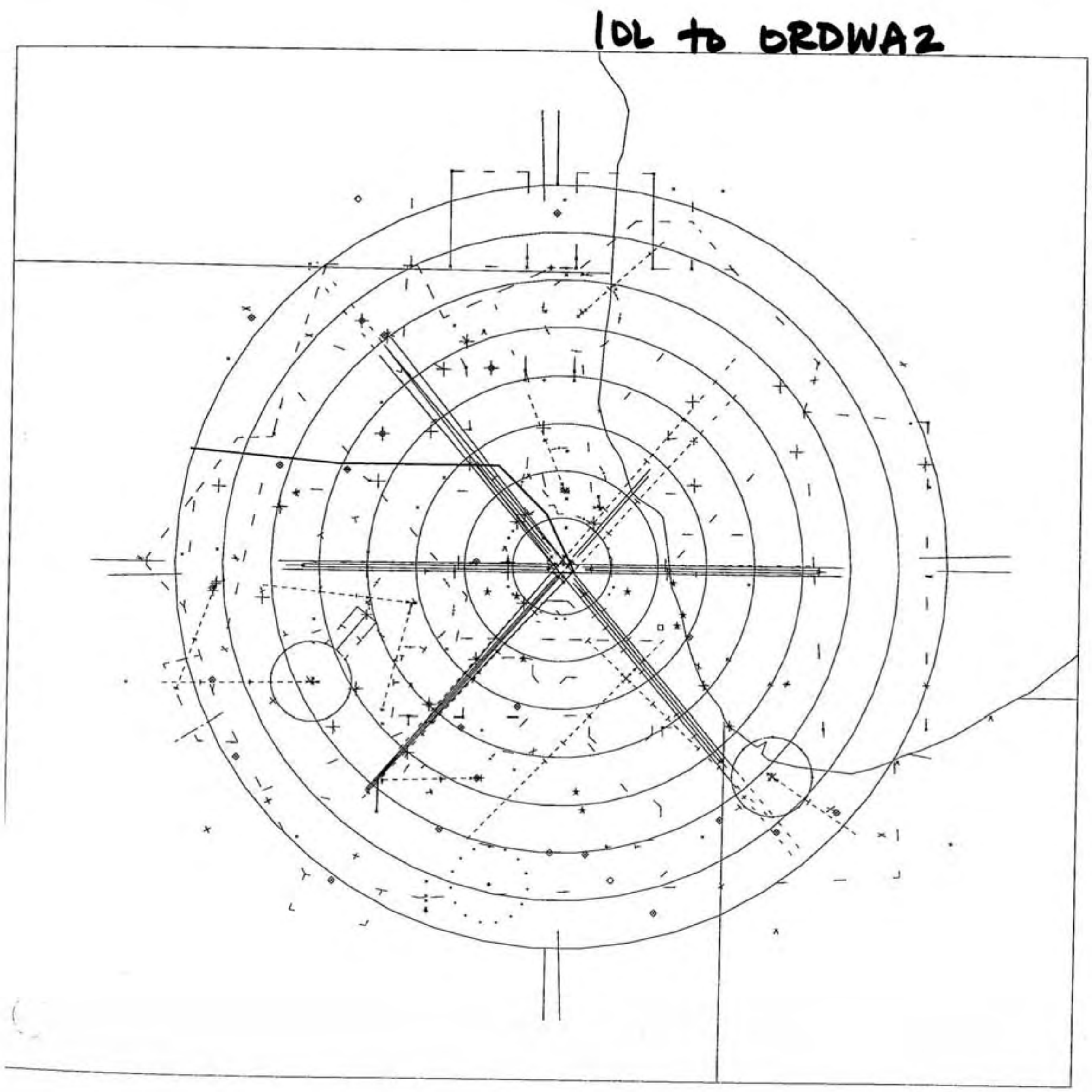
At **0.1** DME **ORD589** turn **Auto** and track directly to **ORD590** VOR

At **0.1** DME **ORD590** turn **Auto** and track directly to **ORDWA2** VOR

Track to **ORDWA2** and as flight planned

10L to ORDWA2

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H ☑ M ☑ L ☑ Tprop: H ☑ M ☑ L ☑ Piston: A ☑
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Do not climb above **15000** until crossed **360** radial **DPA** VOR

Reach **9000** FT or above by **15.0** DME **ORD**

Reach **12000** FT or above by **25.0** DME **ORD**

At **3000** FT turn **Left** and track directly to **ORD601** VOR

At **0.1** DME **ORD601** turn **Auto** and track directly to **ORD589** VOR

At **0.1** DME **ORD589** turn **Auto** and track directly to **ORD590** VOR

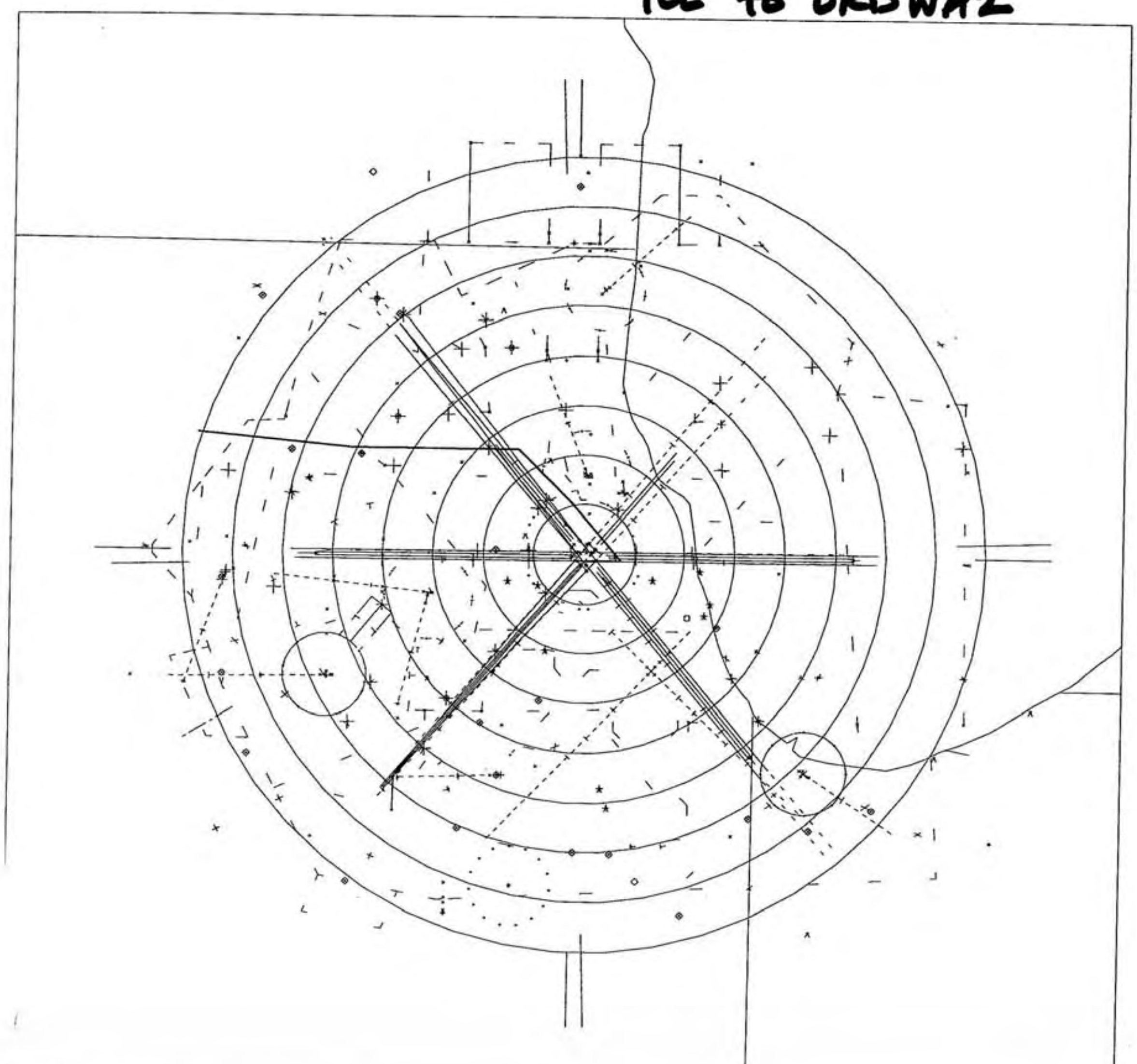
At **0.1** DME **ORD590** turn **Auto** and track directly to **ORDWA2** VOR

Track to **ORDWA2** and as flight planned

10L to ORDWA2

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

10L to ORDWA2



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Do not climb above **15000** until crossed **360** radial **DPA** VOR

Reach **9000** FT or above by **15.0** DME **ORD**

Reach **12000** FT or above by **25.0** DME **ORD**

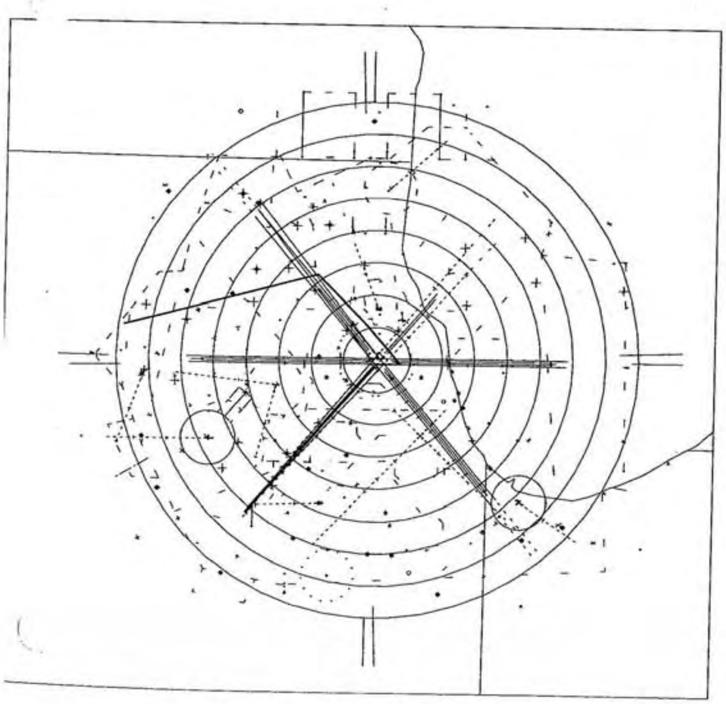
At **3000** FT turn **Left** and track directly to **ORD601** VOR

At **0.1** DME **ORD601** turn **Auto** and track directly to **ORD589** VOR

At **13000** FT turn **Auto** and track directly to **ORDWB2** VOR

Track to **ORDWB2** and as flight planned

10L to ORDWB2



Project: KORD_EIS_EXP33

Printed by taam

Group:	Jet:	H☑	M☑	L☑	Tprop:	H☐	M☐	L☐	Piston:	A☐
Display:		H	M	L		H	M	L		A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Do not climb above **15000** until crossed **180** radial **DPA** VOR

Reach **3000** FT or above by **5.0** DME **ORD**

Reach **9000** FT or above by **15.0** DME **ORD**

Reach **13000** FT or above by **25.0** DME **ORD**

At **1200** FT turn **Auto** and track directly to **ORD504** VOR

At **0.1** DME **ORD504** turn **Auto** and track directly to **ELLYN** VOR

At **0.1** DME **ELLYN** turn **Auto** and heading **270**

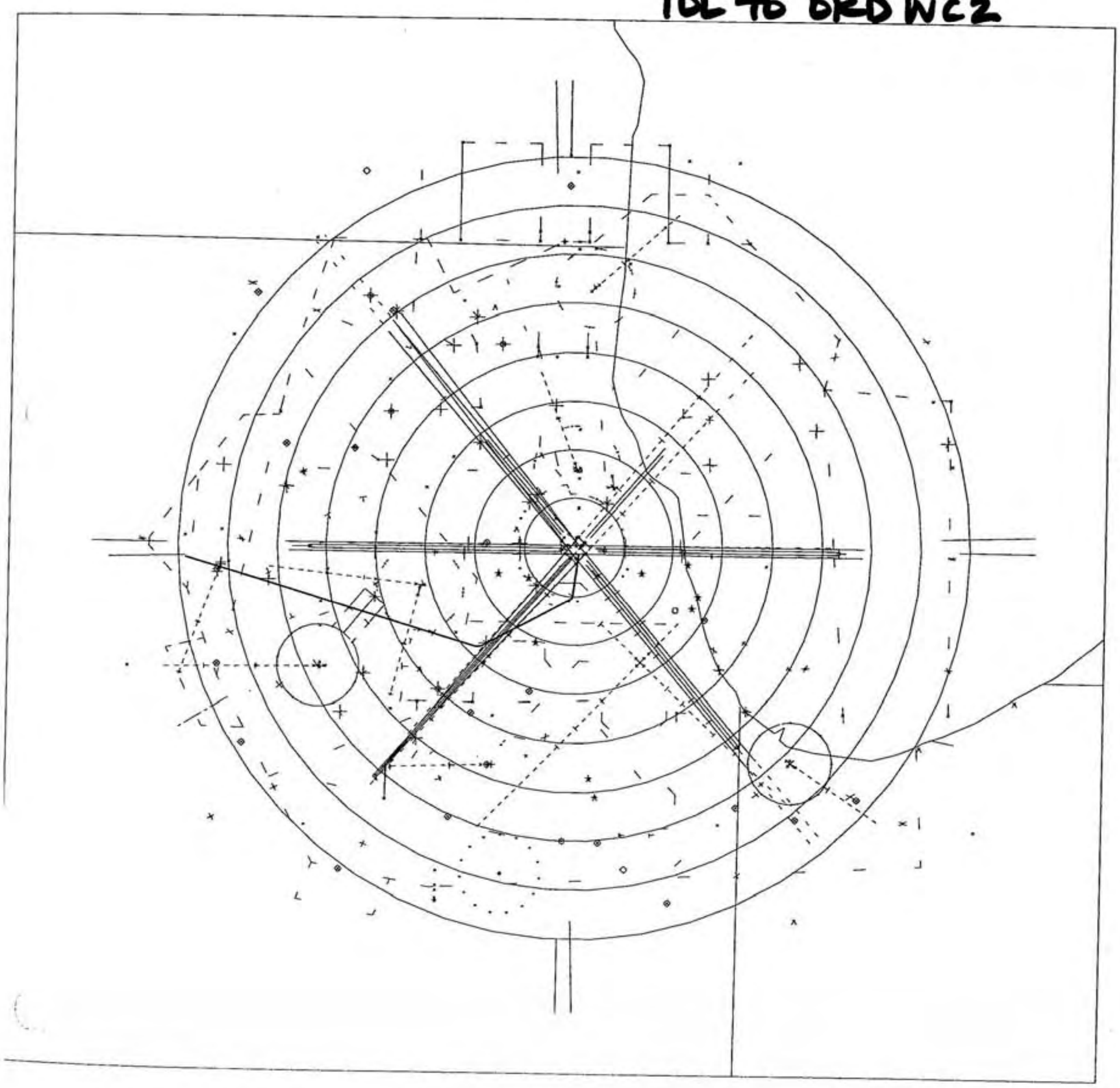
At **11000** FT turn **Auto** and track directly to **ORDWC2** VOR

Track to **ORDWC2** and as flight planned

10L to ORDWC2

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

IDL to ORD WC2



Project: KORD_EIS_EXP33

Printed by taam

Group:	Jet:	H ☑	M ☑	L ☑	Tprop:	H ☐	M ☐	L ☐	Piston:	A ☐
Display:		H	M	L		H	M	L		A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Do not climb above **15000** until crossed **180** radial **DPA** VOR

Reach **3000** FT or above by **5.0** DME **ORD**

Reach **9000** FT or above by **15.0** DME **ORD**

Reach **13000** FT or above by **25.0** DME **ORD**

At **1200** FT turn **Auto** and track directly to **ORD504** VOR

At **0.1** DME **ORD504** turn **Auto** and track directly to **ELLYN** VOR

At **0.1** DME **ELLYN** turn **Auto** and track directly to **ORD592** VOR

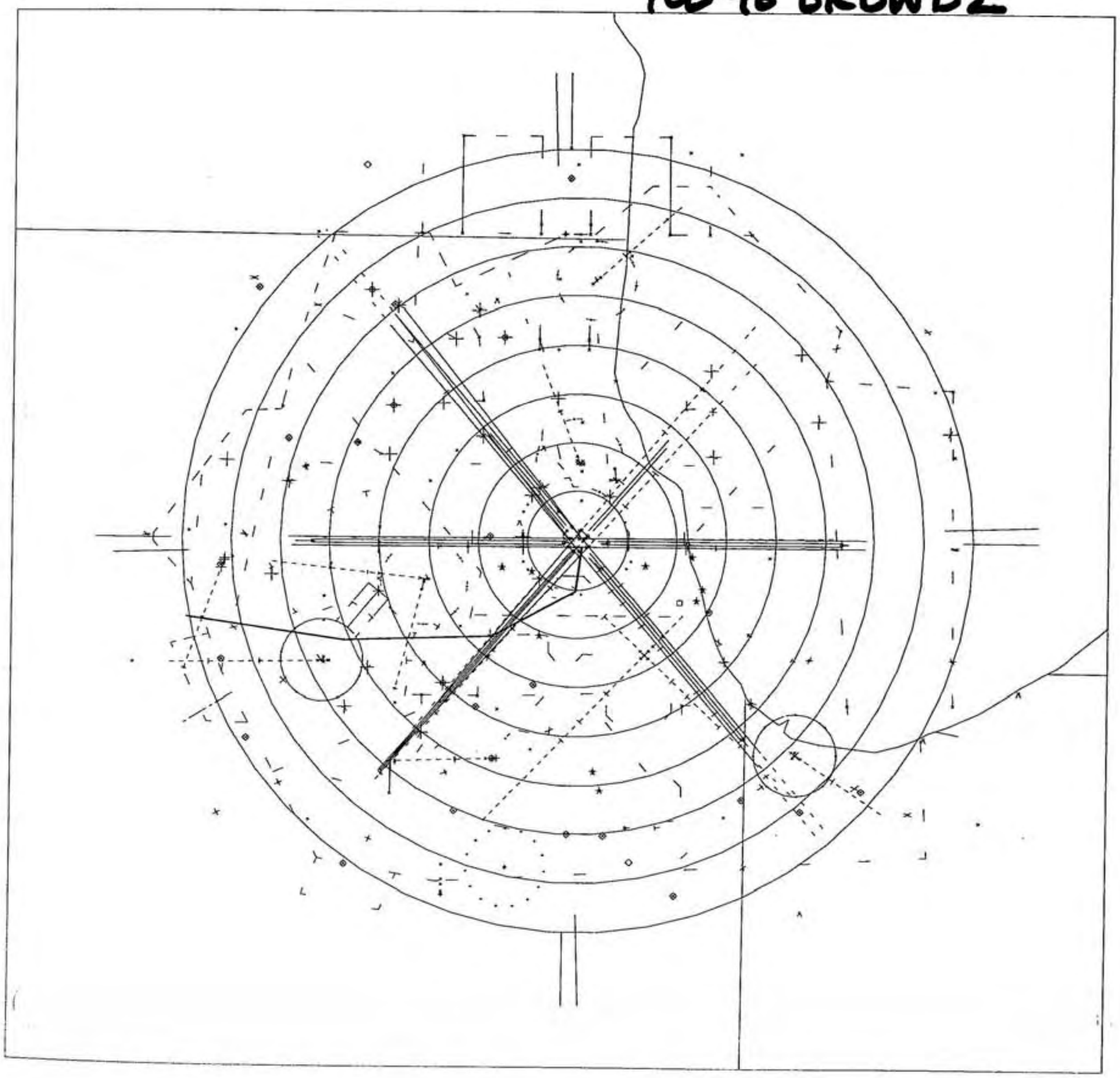
At **0.1** DME **ORD592** turn **Auto** and track directly to **ORDWD2** VOR

Track to **ORDWD2** and as flight planned

IDL to ORDWD2

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

10L to DRDWD2



Project: KORD_EIS_EXP33

Printed by taam

Group:	Jet: H☑	M☑	L☑	Tprop: H☐	M☐	L☐	Piston: A☐
Display:	H	M	L	H	M	L	A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Do not climb above **15000** until crossed **180** radial **DPA** VOR

Reach **9000** FT or above by **15.0** DME **ORD**

Reach **13000** FT or above by **25.0** DME **ORD**

At **1200** FT turn **Auto** and track directly to **ORD504** VOR

At **0.1** DME **ORD504** turn **Auto** and track directly to **ELLYN** VOR

At **0.1** DME **ELLYN** turn **Auto** and track directly to **ORD592** VOR

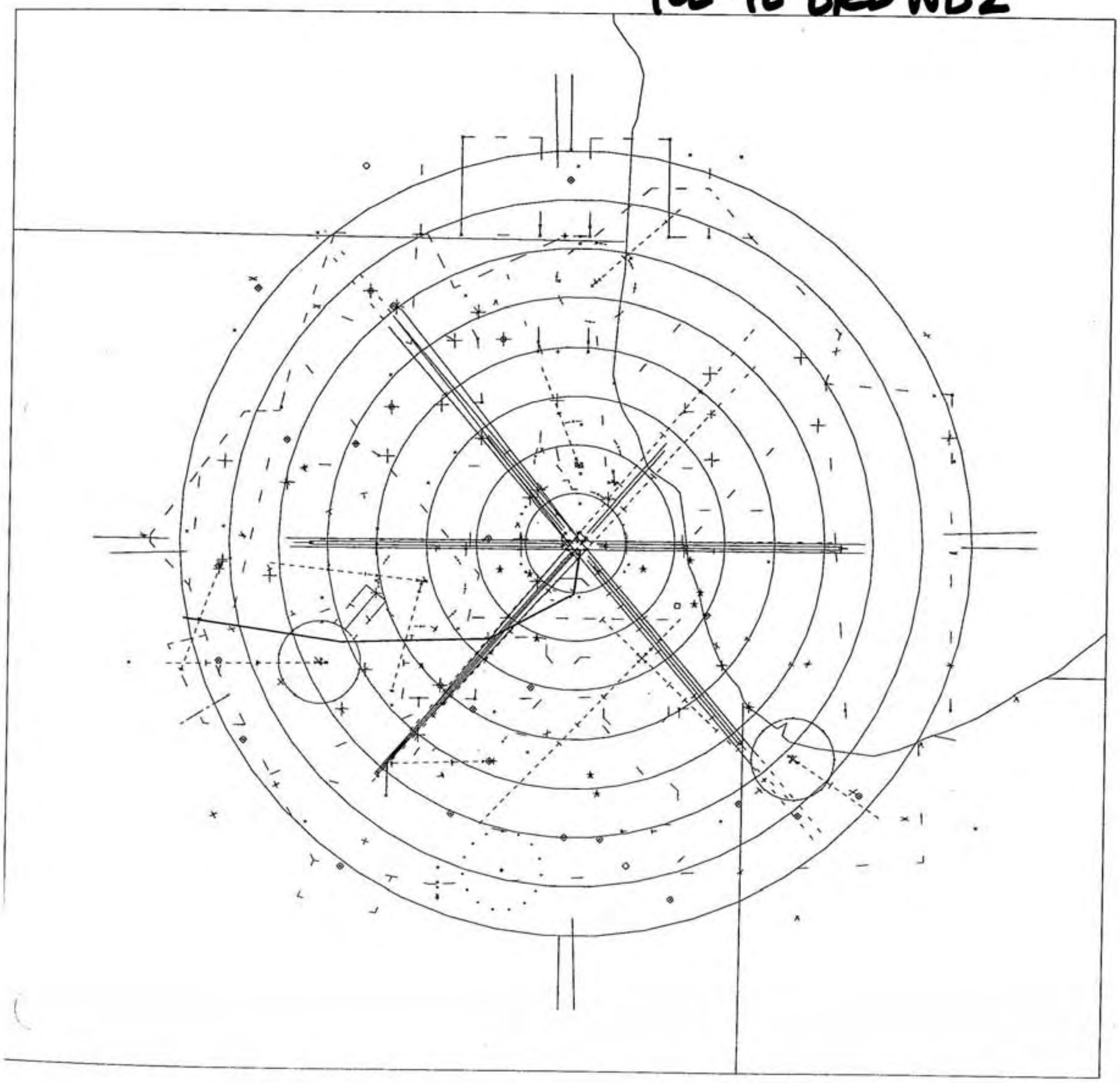
At **0.1** DME **ORD592** turn **Auto** and track directly to **ORDWD2** VOR

Track to **ORDWD2** and as flight planned

10L to ORD WD2

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

10L to ORD WD2



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Do not climb above **15000** until crossed **180** radial **DPA** VOR

Reach **3000** FT or above by **5.0** DME **ORD**

Reach **9000** FT or above by **15.0** DME **ORD**

Reach **13000** FT or above by **25.0** DME **ORD**

At **3000** FT turn **Auto** and track directly to **ORD504** VOR

At **0.1** DME **ORD504** turn **Auto** and track directly to **ELLYN** VOR

At **0.1** DME **ELLYN** turn **Auto** and track directly to **ORD592** VOR

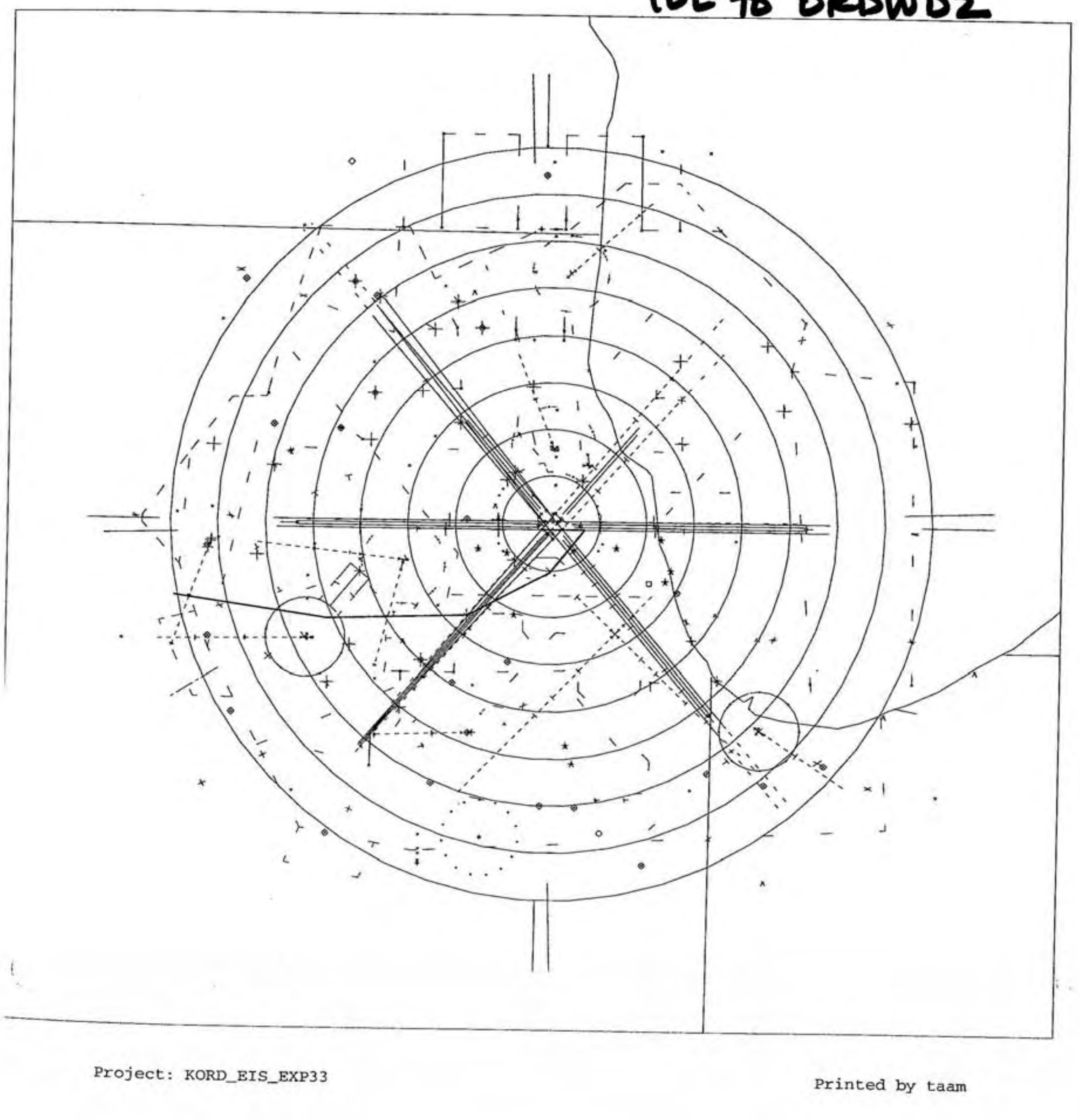
At **0.1** DME **ORD592** turn **Auto** and track directly to **ORDWD2** VOR

Track to **ORDWD2** and as flight planned

10L to ORDWD2

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

10L to ORDWD2



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H ☑ M ☑ L ☑ Tprop: H ☑ M ☑ L ☑ Piston: A ☑

Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **8.0** DME **ORD**

At **3000** FT turn **Left** and track directly to **ORD600** VOR

At **0.1** DME **ORD600** turn **Auto** and track directly to **ORD241** VOR

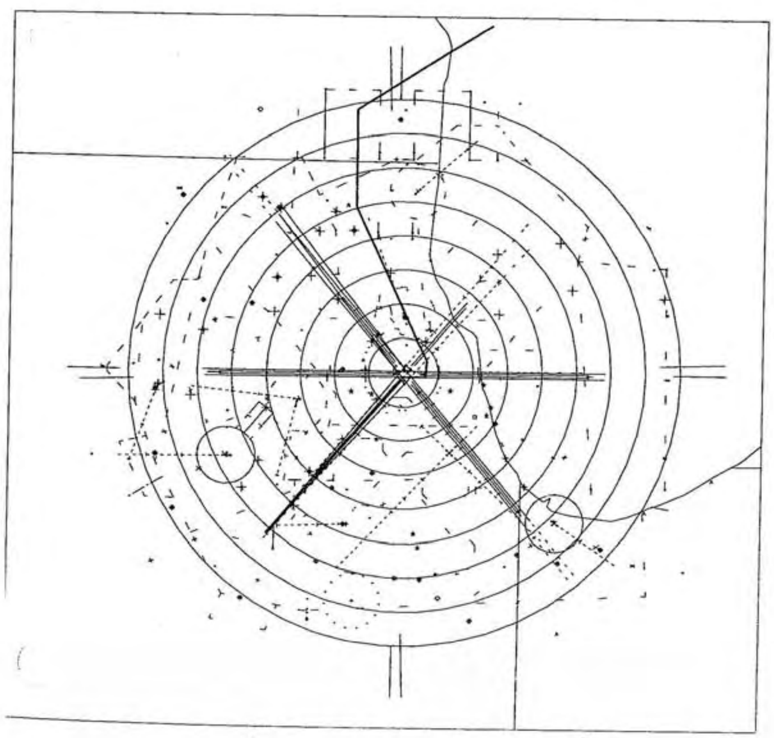
At **0.1** DME **ORD241** turn **Auto** and track directly to **ORD591** VOR

At **0.1** DME **ORD591** turn **Auto** and heading **003**

When crossing **240** radial **PETTY** VOR turn **Auto** and track directly to **PETTY** VOR

Track to **PETTY** and as flight planned

10L to PETTY



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H□ M□ L□ Piston: A□
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Reach **4000** FT or above by **8.0** DME **ORD**

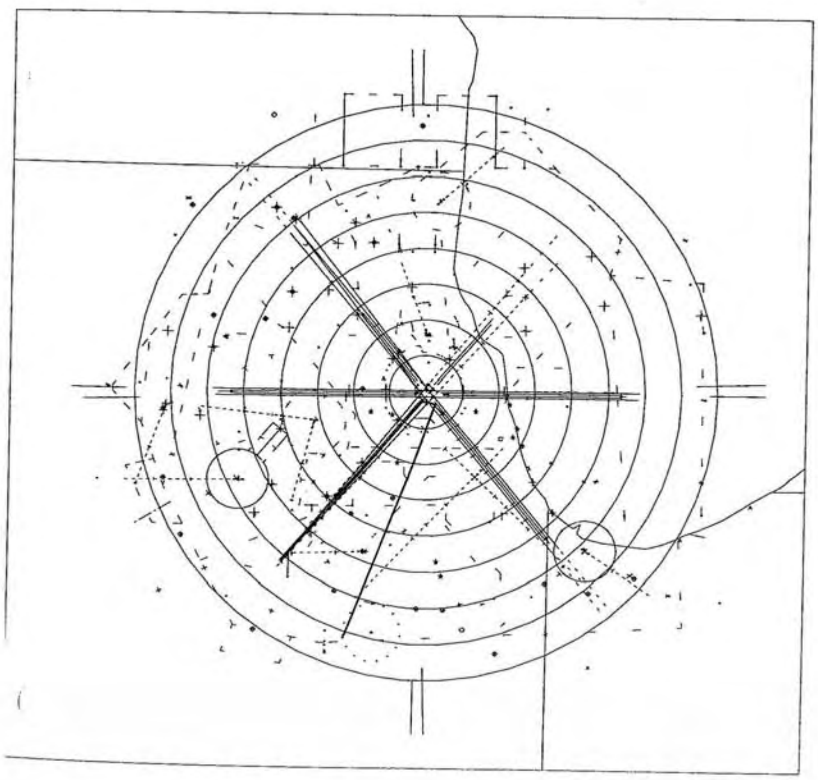
At **1200** FT turn **Auto** and track directly to **ORD593** VOR

At **0.1** DME **ORD593** turn **Auto** and track directly to **ORD596** VOR

At **0.1** DME **ORD596** turn **Auto** and track directly to **ORDSA** VOR

Track to **ORDSA** and as flight planned

10R to ORDSA



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H ☑ M ☑ L ☑ Tprop: H □ M □ L □ Piston: A □
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Reach **4000** FT or above by **8.0** DME **ORD**

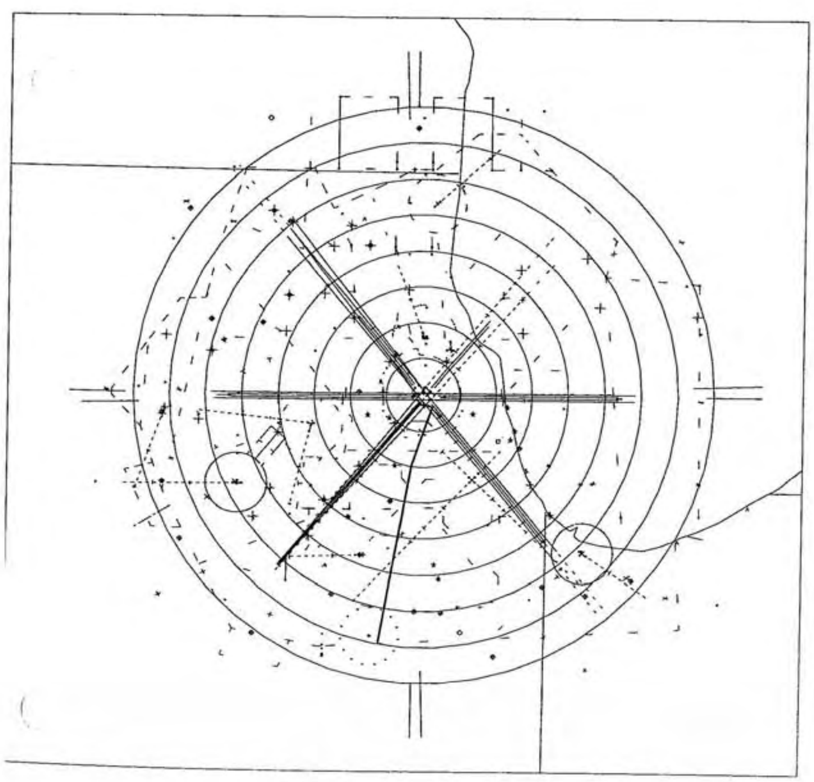
At **1200** FT turn **Auto** and track directly to **ORD593** VOR

At **0.1** DME **ORD593** turn **Auto** and track directly to **ORD596** VOR

At **0.1** DME **ORD596** turn **Auto** and track directly to **ORDSB** VOR

Track to **ORDSB** and as flight planned

10R to ORDSB



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Reach **4000** FT or above by **8.0** DME **ORD**

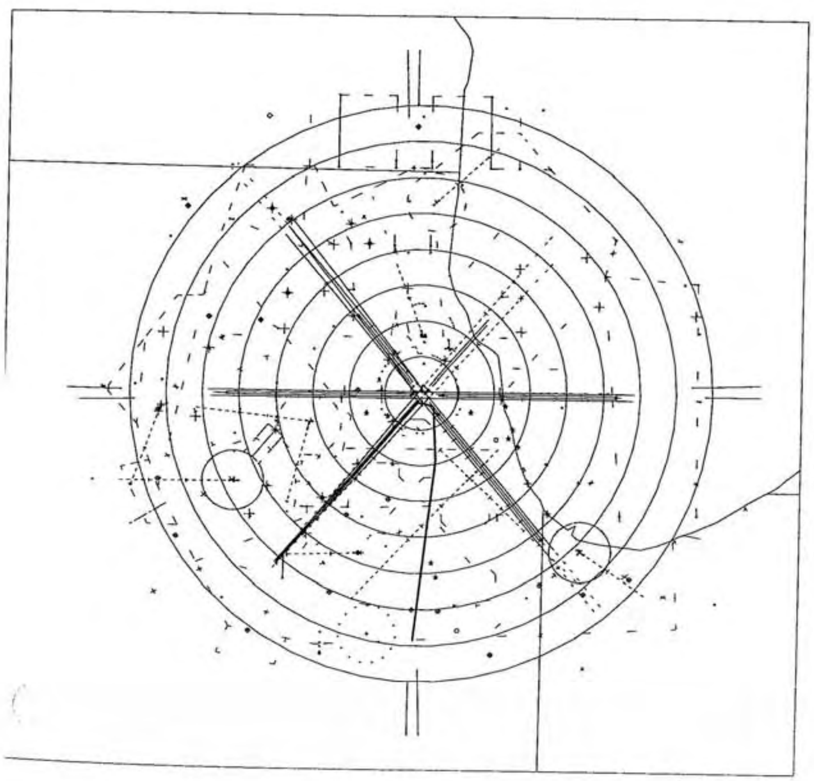
At **1200** FT turn **Auto** and track directly to **ORD593** VOR

At **0.1** DME **ORD593** turn **Auto** and heading **180**

At **10.0** DME **ORD** turn **Auto** and track directly to **ORDSC** VOR

Track to **ORDSC** and as flight planned

10R toORDSC



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Do not climb above **15000** until crossed **180** radial **DPA** VOR

Reach **3000** FT or above by **5.0** DME **ORD**

Reach **9000** FT or above by **15.0** DME **ORD**

Reach **13000** FT or above by **25.0** DME **ORD**

At **1200** FT turn **Auto** and track directly to **ORD504** VOR

At **0.1** DME **ORD504** turn **Auto** and track directly to **ELLYN** VOR

At **0.1** DME **ELLYN** turn **Auto** and heading **270**

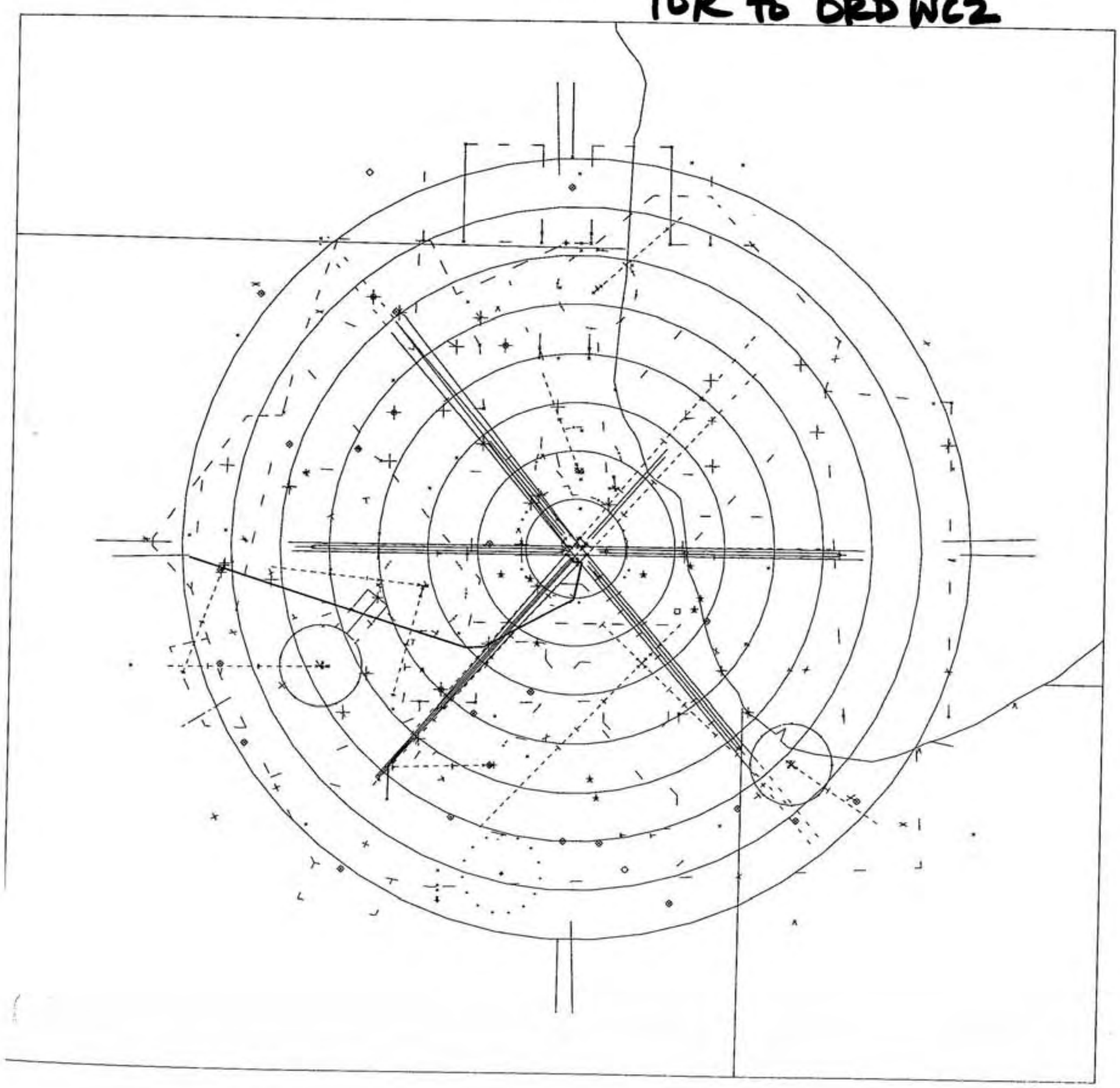
At **11000** FT turn **Auto** and track directly to **ORDWC2** VOR

Track to **ORDWC2** and as flight planned

10R to ORDWC2

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

10R to ORD WC2



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H☑ M☑ L☑ Tprop: H☐ M☐ L☐ Piston: A☐
Display: H M L H M L A

Maintain runway heading

Do not climb above **5000** until **7.0** DME **ORD**

Do not climb above **15000** until crossed **180** radial **DPA** VOR

Reach **9000** FT or above by **15.0** DME **ORD**

Reach **13000** FT or above by **25.0** DME **ORD**

At **1200** FT turn **Auto** and track directly to **ORD504** VOR

At **0.1** DME **ORD504** turn **Auto** and track directly to **ELLYN** VOR

At **0.1** DME **ELLYN** turn **Auto** and track directly to **ORD592** VOR

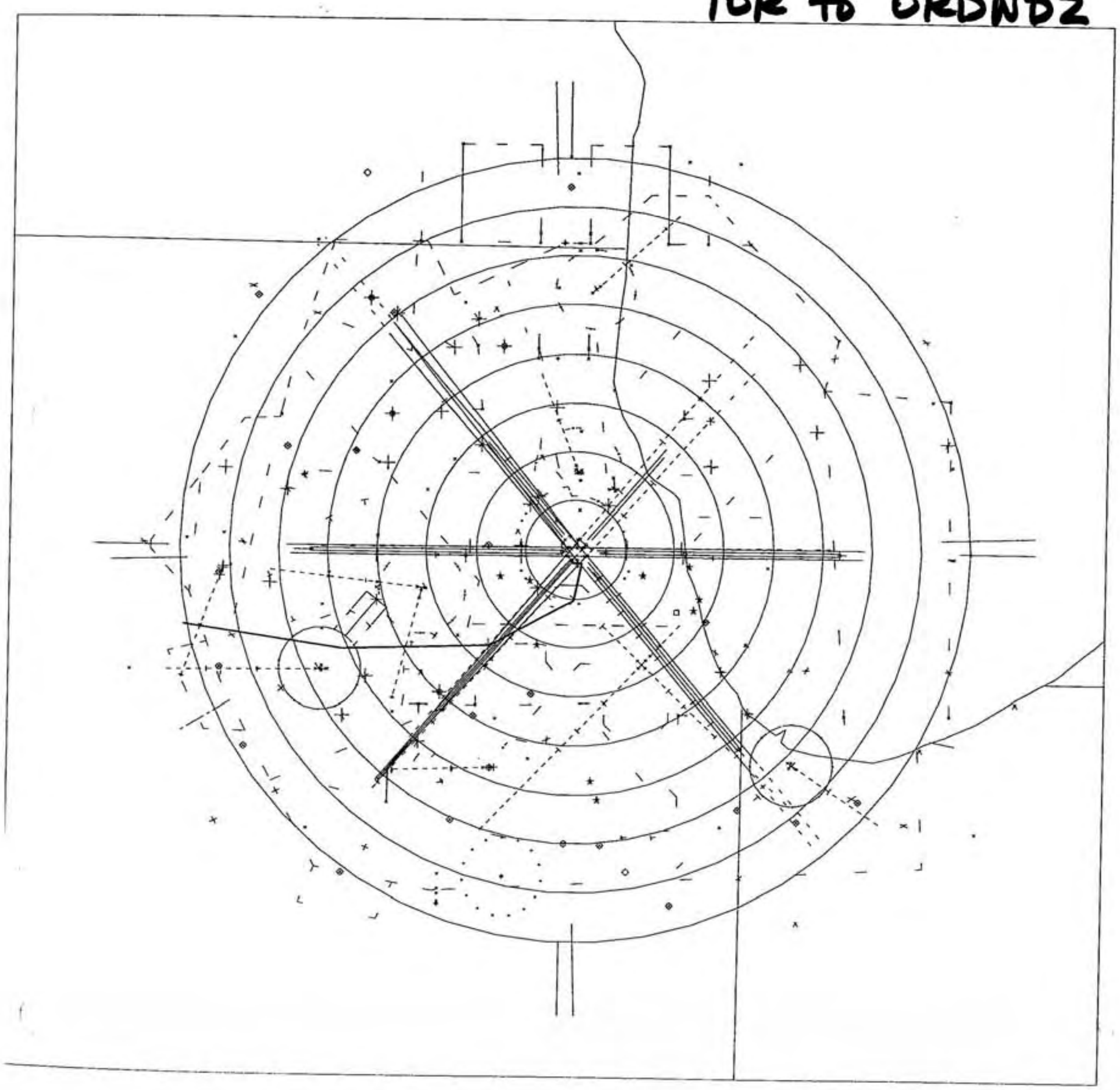
At **0.1** DME **ORD592** turn **Auto** and track directly to **ORDWD2** VOR

Track to **ORDWD2** and as flight planned

10R to ORDWD2

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

10R to ORDWDZ



Project: KORD_EIS_EXP33

Printed by taam

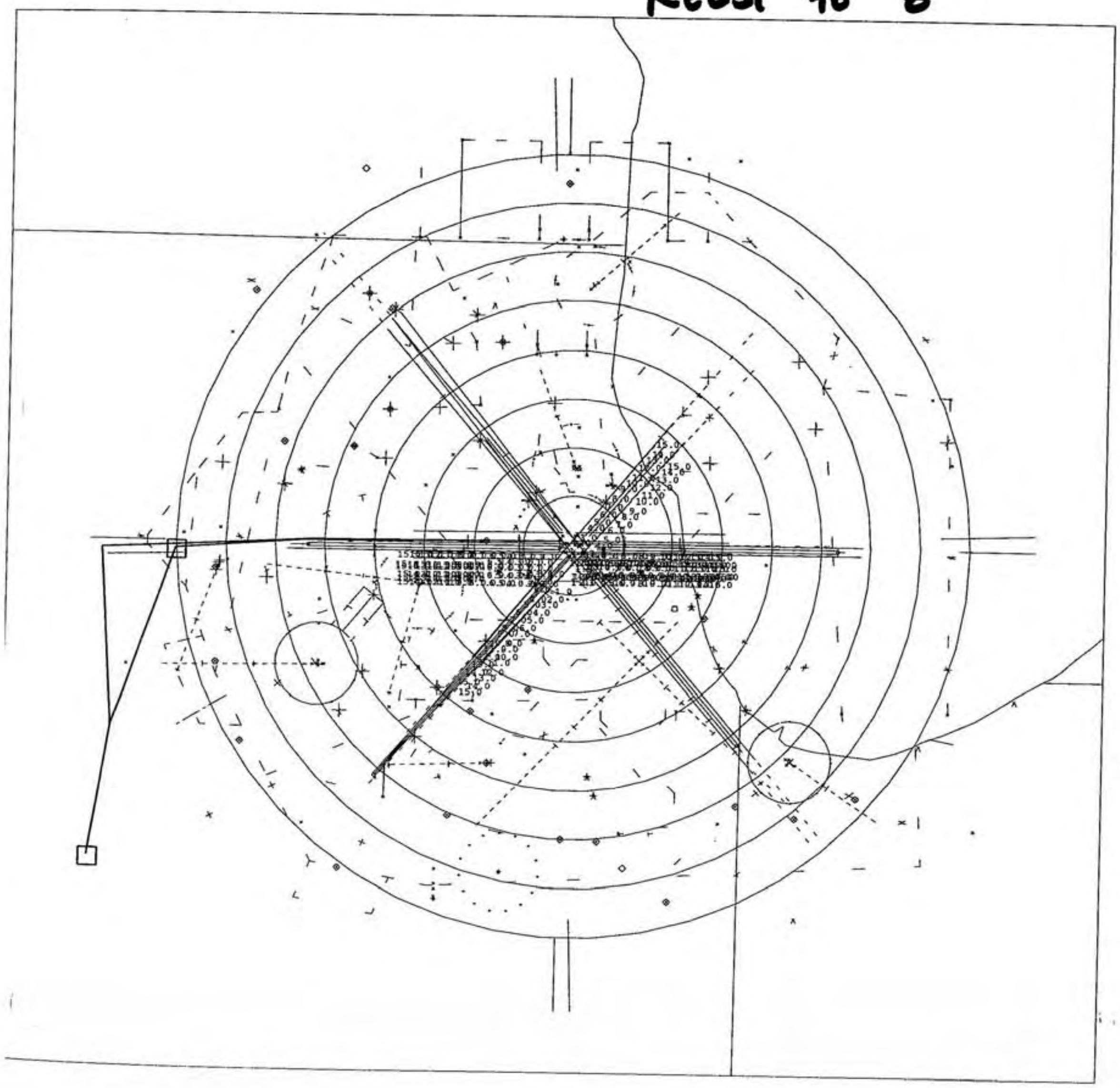
Group: Jet:	H ☑	M ☑	L ☑	Tprop:	H ☑	M ☑	L ☑	Piston:	A ☑
Display:	H	M	L		H	M	L		A

Point No. **1** Point Name : **KELSI** Altitude : **- 16000**	Latitude : **N41 26 20.3** DME : **None**	Longitude : **W088 59 28.9** IAS : **210 - 250**
Point No. **2** Point Name : **ORD599** Altitude : **- 16000**	Latitude : **N41 28 32.6** DME : **None**	Longitude : **W088 59 3.6** IAS : **210 - 250**
Point No. **3** Point Name : **ORD586** Altitude : **12000**	Latitude : **N41 39 50.4** DME : **None**	Longitude : **W088 56 37.2** IAS : **210 - 250**
Point No. **4** Point Name : **ORD554** Altitude : **10000**	Latitude : **N41 58 3.7** DME : **None**	Longitude : **W088 48 5.7** IAS : **190 - 250**
Point No. **5** Point Name : **ORD308** Altitude : **6000**	Latitude : **N41 59 8.2** DME : **None**	Longitude : **W088 29 37.2** IAS : **170 - 190**
Point No. **6** Point Name : **ORD331** Altitude : **2200**	Latitude : **N41 59 13.3** DME : **None**	Longitude : **W088 02 39.7** IAS : **170**

KELSI to B

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

KELSI to 8



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H ☑ M ☑ L ☑ Tprop: H ☑ M ☑ L ☑ Piston: A ☑

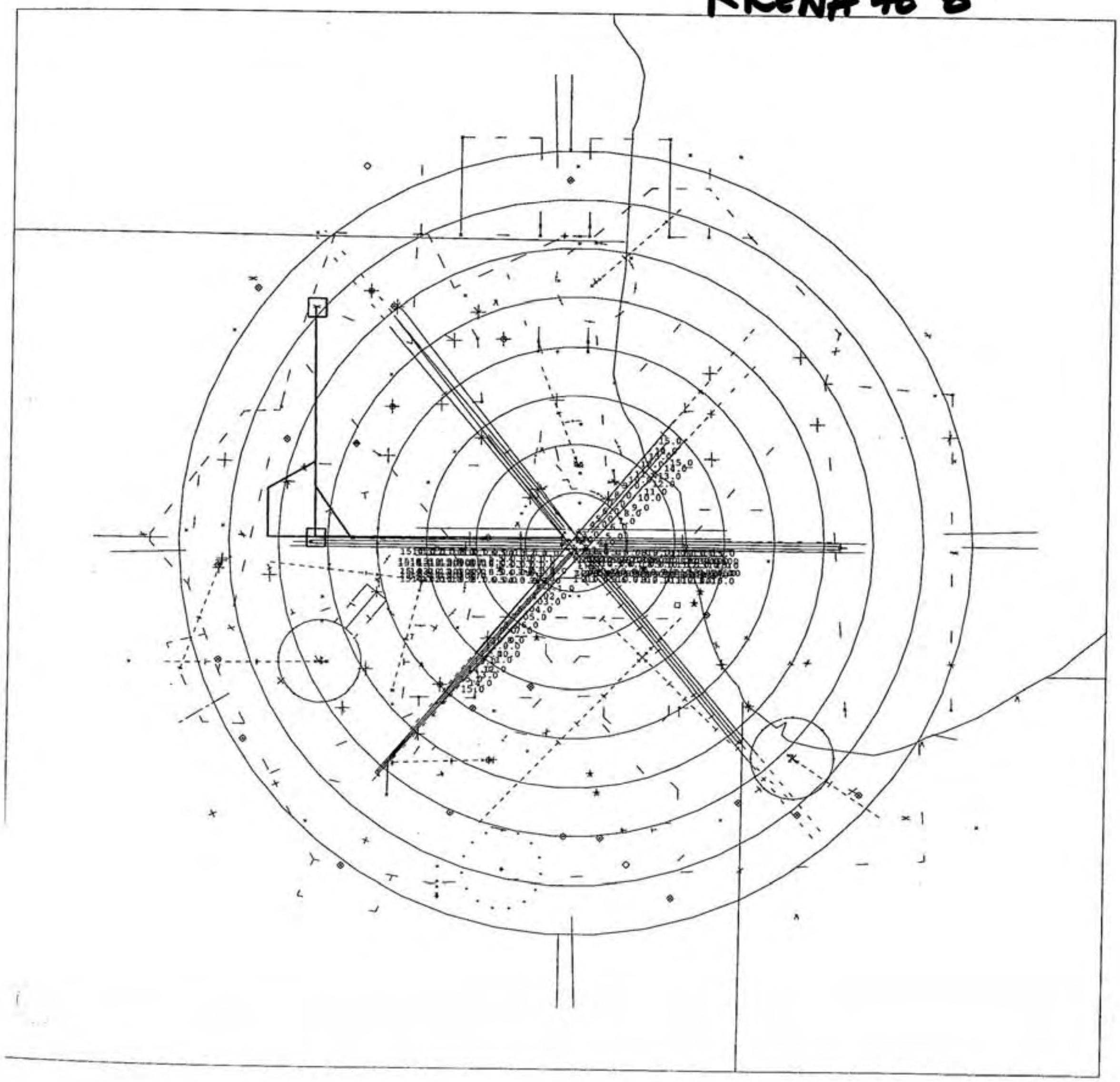
Display: H M L H M L A

Point No. **1** Point Name : **KRENA** Altitude : **9000**	Latitude : **N42 22 29.6** DME : **None**	Longitude : **W088 29 58.1** IAS : **190 - 250**
Point No. **2** Point Name : **ORD384** Altitude : **9000**	Latitude : **N42 21 24.6** DME : **None**	Longitude : **W088 29 58.1** IAS : **190 - 250**
Point No. **3** Point Name : **ORD598** Altitude : **7000**	Latitude : **N42 15 24.5** DME : **None**	Longitude : **W088 29 52.4** IAS : **170 - 210**
Point No. **4** Point Name : **ORD575** Altitude : **7000**	Latitude : **N42 06 44.7** DME : **None**	Longitude : **W088 29 43.2** IAS : **170 - 210**
Point No. **5** Point Name : **ORD548** Altitude : **7000**	Latitude : **N42 04 10.6** DME : **None**	Longitude : **W088 29 40.8** IAS : **170 - 210**
Point No. **6** Point Name : **ORD308** Altitude : **7000**	Latitude : **N41 59 8.2** DME : **None**	Longitude : **W088 29 37.2** IAS : **170 - 190**
Point No. **7** Point Name : **ORD331** Altitude : **2200**	Latitude : **N41 59 13.3** DME : **None**	Longitude : **W088 02 39.7** IAS : **170**

KRENA to B

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

KRENA to B



Project: KORD_EIS_EXP33

Printed by taam

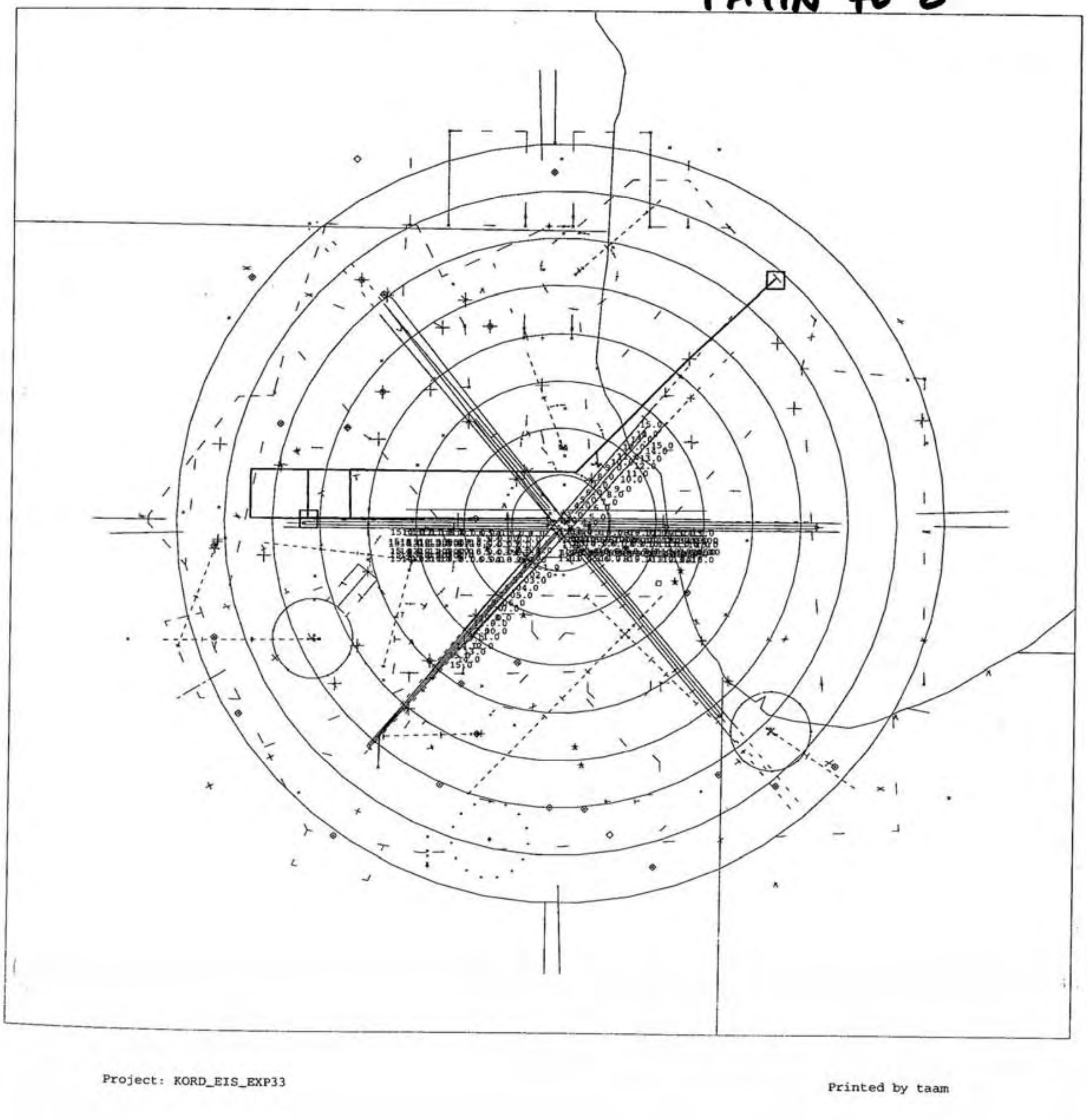
Group: Jet:	H ☑	M ☑	L ☑	Tprop:	H ☑	M ☑	L ☑	Piston:	A ☑
Display:	H	M	L		H	M	L		A

Point No. **1** Point Name : **PAYTN** Altitude : **10000**	Latitude : **N42 24 40.8** DME : **None**	Longitude : **W087 24 35.7** IAS : **210 - 250**
Point No. **2** Point Name : **ORD571** Altitude : **10000**	Latitude : **N42 23 57.6** DME : **None**	Longitude : **W087 25 37.1** IAS : **210 - 250**
Point No. **3** Point Name : **PAPPI** Altitude : **10000**	Latitude : **N42 16 16.7** DME : **None**	Longitude : **W087 36 26.1** IAS : **210 - 250**
Point No. **4** Point Name : **ORD250** Altitude : **9500**	Latitude : **N42 11 47.8** DME : **None**	Longitude : **W087 42 14.2** IAS : **210 - 250**
Point No. **5** Point Name : **ORD241** Altitude : **8000**	Latitude : **N42 04 8.6** DME : **None**	Longitude : **W087 52 5.9** IAS : **210 - 250**
Point No. **6** Point Name : **ORD569** Altitude : **8000**	Latitude : **N42 04 9.8** DME : **None**	Longitude : **W088 00 23.3** IAS : **190 - 210**
Point No. **7** Point Name : **ORD565** Altitude : **8000**	Latitude : **N42 04 9.0** DME : **None**	Longitude : **W088 14 6.2** IAS : **190 - 210**
Point No. **8** Point Name : **ORD548** Altitude : **7000**	Latitude : **N42 04 10.6** DME : **None**	Longitude : **W088 29 40.8** IAS : **170 - 190**
Point No. **9** Point Name : **ORD308** Altitude : **6000**	Latitude : **N41 59 8.2** DME : **None**	Longitude : **W088 29 37.2** IAS : **170 - 190**
Point No. **10** Point Name : **ORD331** Altitude : **2200**	Latitude : **N41 59 13.3** DME : **None**	Longitude : **W088 02 39.7** IAS : **170**

PAYTN to 8

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

PAYTN to 8



Project: KORD_EIS_EXP33

Printed by taam

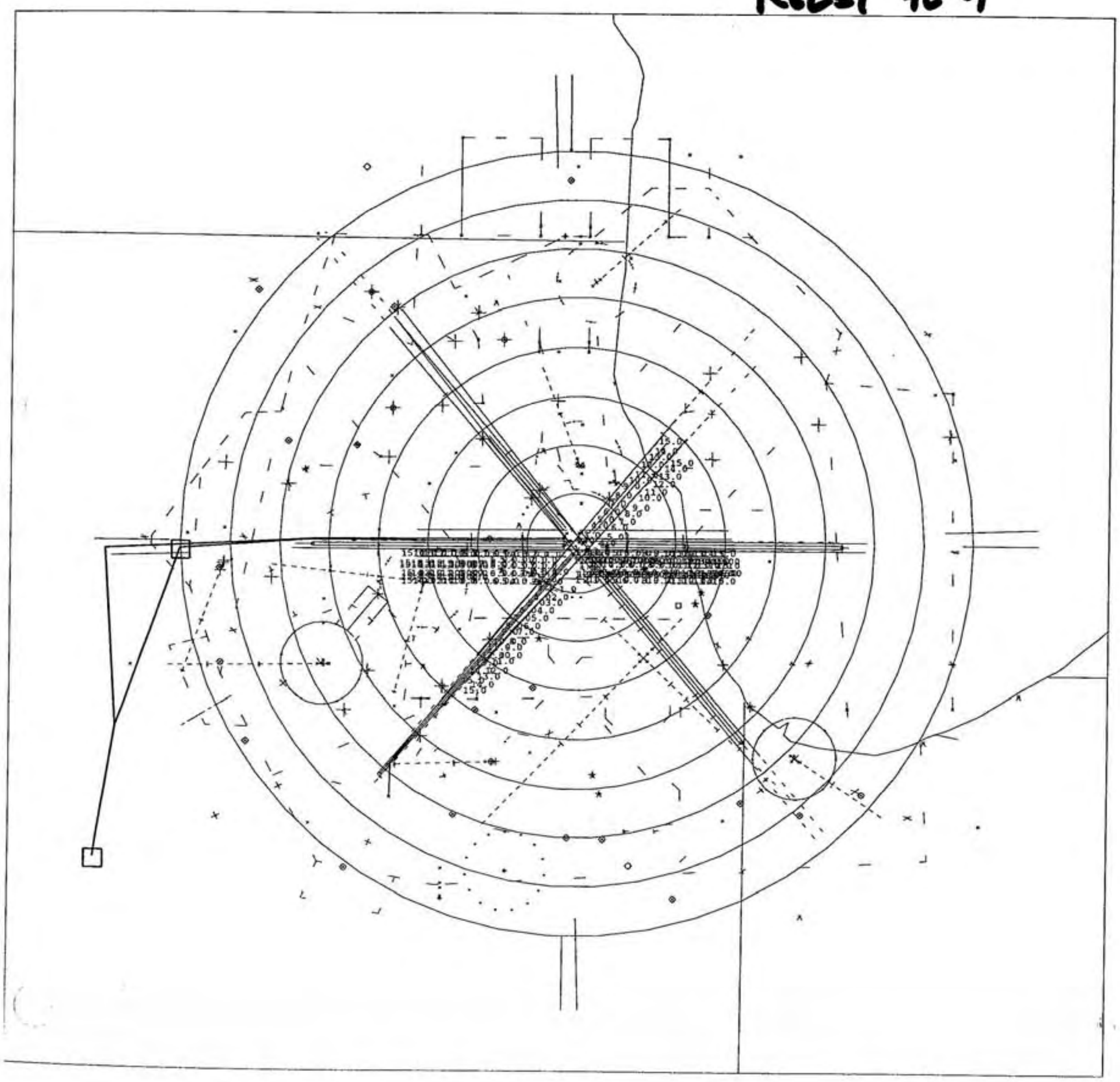
Group: Jet:	H ☑	M ☑	L ☑	Tprop:	H ☑	M ☑	L ☑	Piston:	A ☑
Display:	H	M	L		H	M	L		A

Point No. **1** Point Name : **KELSI** Altitude : **- 16000**	Latitude : **N41 26 20.3** DME : **None**	Longitude : **W088 59 28.9** IAS : **210 - 300**
Point No. **2** Point Name : **ORD599** Altitude : **- 16000**	Latitude : **N41 28 32.6** DME : **None**	Longitude : **W088 59 3.6** IAS : **210 - 300**
Point No. **3** Point Name : **ORD586** Altitude : **12000**	Latitude : **N41 39 50.4** DME : **None**	Longitude : **W088 56 37.2** IAS : **210 - 250**
Point No. **4** Point Name : **ORD554** Altitude : **10000**	Latitude : **N41 58 3.7** DME : **None**	Longitude : **W088 48 5.7** IAS : **190 - 250**
Point No. **5** Point Name : **ORD308** Altitude : **6000**	Latitude : **N41 59 8.2** DME : **None**	Longitude : **W088 29 37.2** IAS : **170 - 190**
Point No. **6** Point Name : **ORD331** Altitude : **2200**	Latitude : **N41 59 13.3** DME : **None**	Longitude : **W088 02 39.7** IAS : **170**

KELSI to 9

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

KELSI to 9



Project: KORD_EIS_EXP33

Printed by taam

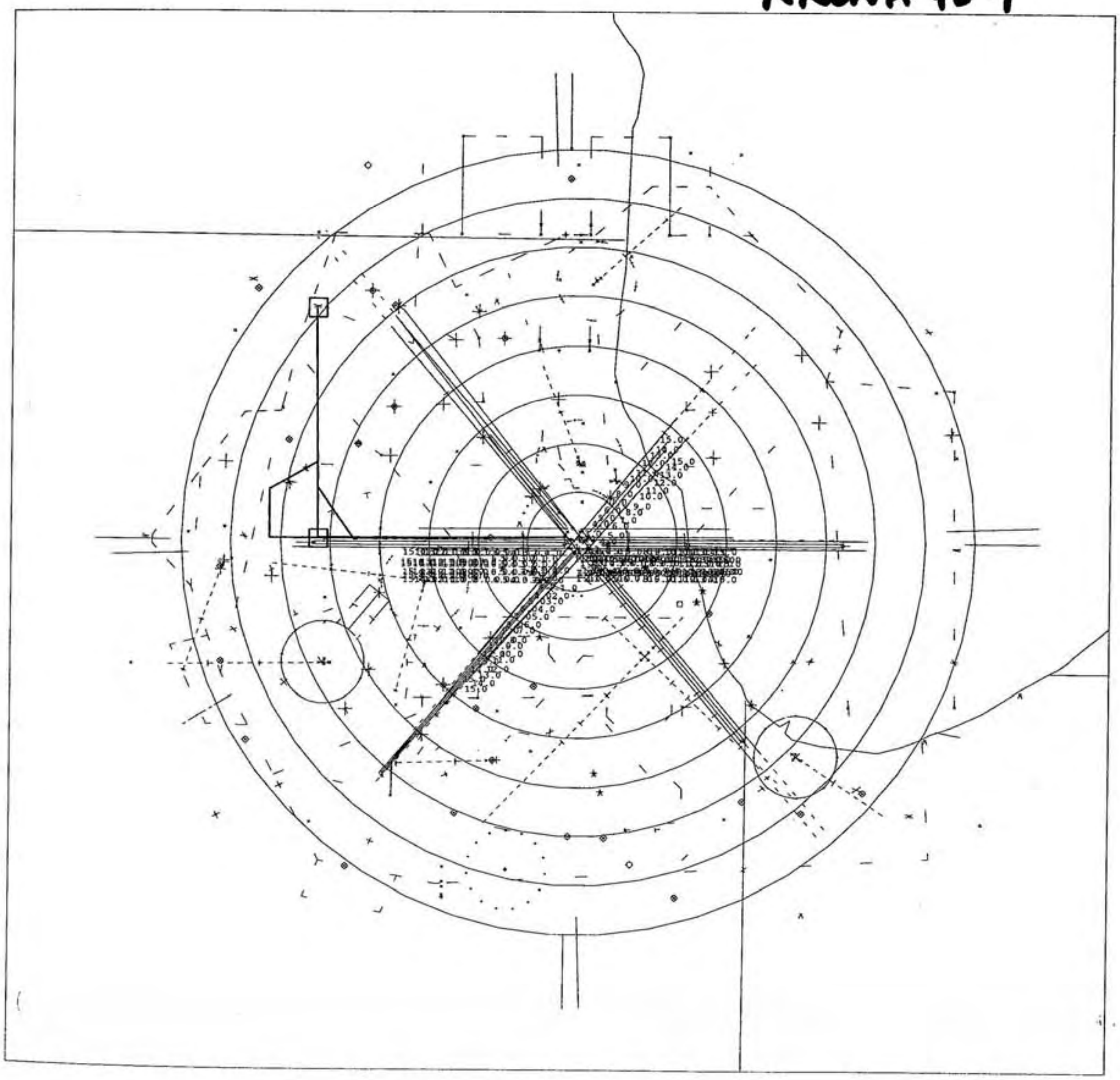
Group:	Jet:	H ☑	M ☑	L ☑	Tprop:	H ☑	M ☑	L ☑	Piston:	A ☑
Display:		H	M	L		H	M	L		A

Point No. **1** Point Name : **KRENA** Altitude : **9000**	Latitude : **N42 22 29.6** DME : **None**	Longitude : **W088 29 58.1** IAS : **190 - 250**
Point No. **2** Point Name : **ORD384** Altitude : **9000**	Latitude : **N42 21 24.6** DME : **None**	Longitude : **W088 29 58.1** IAS : **190 - 250**
Point No. **3** Point Name : **ORD598** Altitude : **7000**	Latitude : **N42 15 24.5** DME : **None**	Longitude : **W088 29 52.4** IAS : **190 - 210**
Point No. **4** Point Name : **ORD575** Altitude : **7000**	Latitude : **N42 06 44.7** DME : **None**	Longitude : **W088 29 43.2** IAS : **190 - 210**
Point No. **5** Point Name : **ORD548** Altitude : **7000**	Latitude : **N42 04 10.6** DME : **None**	Longitude : **W088 29 40.8** IAS : **170 - 190**
Point No. **6** Point Name : **ORD308** Altitude : **7000**	Latitude : **N41 59 8.2** DME : **None**	Longitude : **W088 29 37.2** IAS : **170 - 190**
Point No. **7** Point Name : **ORD331** Altitude : **2200**	Latitude : **N41 59 13.3** DME : **None**	Longitude : **W088 02 39.7** IAS : **170**

KRENA to 9

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

KRENA to 9



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H ☑ M ☑ L ☑ Tprop: H ☑ M ☑ L ☑ Piston: A ☑

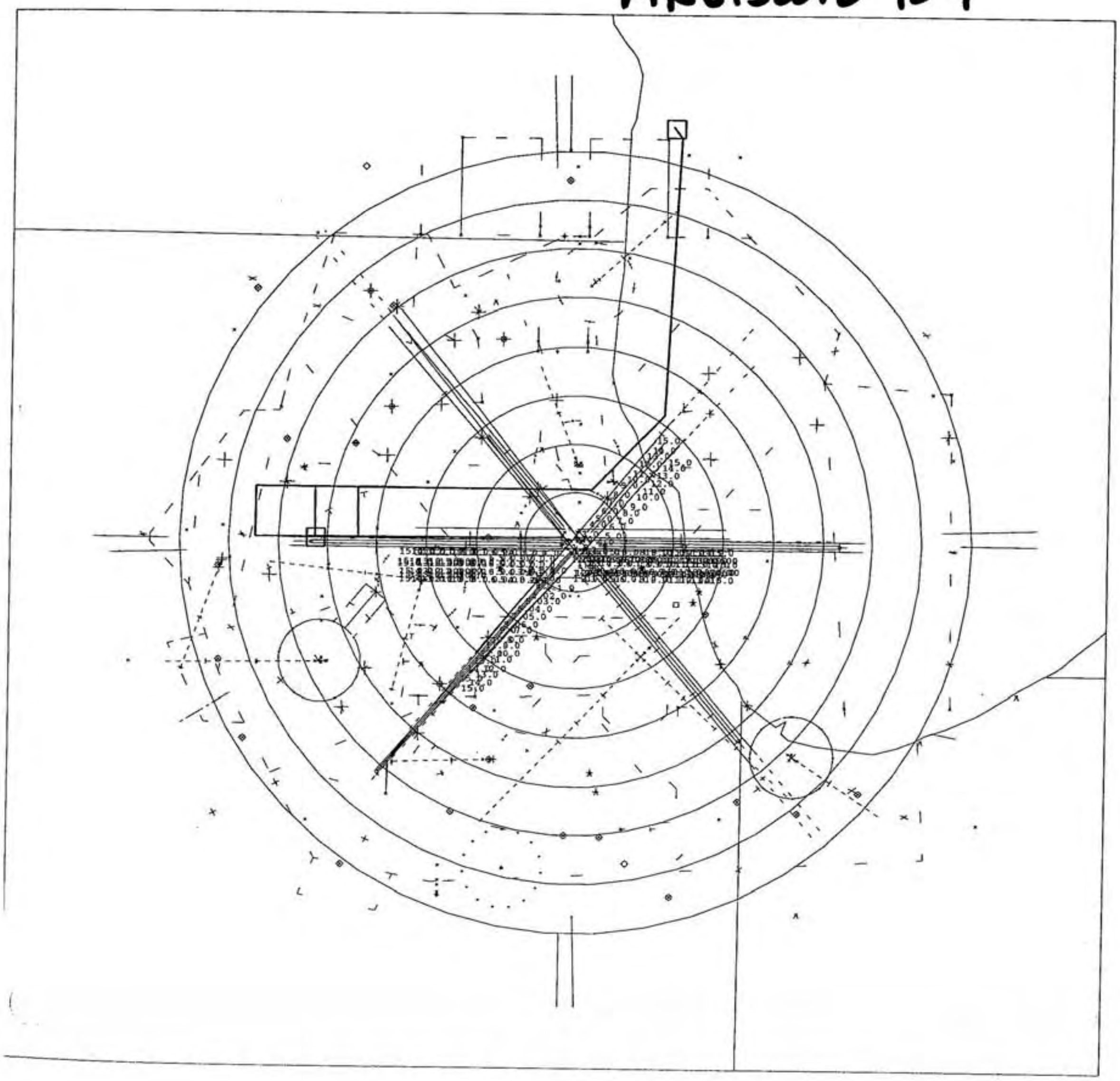
Display: H M L H M L A

Point	Latitude / DME	Longitude / IAS
Point No. 1 Point Name : **MKE150018** Altitude : **8000**	Latitude : **N42 41 17.6** DME : **None**	Longitude : **W087 41 29.8** IAS : **190 - 250**
Point No. 2 Point Name : **ORD570** Altitude : **8000**	Latitude : **N42 40 8.8** DME : **None**	Longitude : **W087 40 23.2** IAS : **190 - 250**
Point No. 3 Point Name : **ORD250** Altitude : **7000**	Latitude : **N42 11 47.8** DME : **None**	Longitude : **W087 42 14.2** IAS : **190 - 250**
Point No. 4 Point Name : **ORD241** Altitude : **7000**	Latitude : **N42 04 8.6** DME : **None**	Longitude : **W087 52 5.9** IAS : **190 - 210**
Point No. 5 Point Name : **ORD565** Altitude : **7000**	Latitude : **N42 04 9.0** DME : **None**	Longitude : **W088 14 6.2** IAS : **190 - 210**
Point No. 6 Point Name : **ORD548** Altitude : **6000**	Latitude : **N42 04 10.6** DME : **None**	Longitude : **W088 29 40.8** IAS : **170 - 190**
Point No. 7 Point Name : **ORD308** Altitude : **4000**	Latitude : **N41 59 8.2** DME : **None**	Longitude : **W088 29 37.2** IAS : **170 - 190**
Point No. 8 Point Name : **ORD331** Altitude : **2200**	Latitude : **N41 59 13.3** DME : **None**	Longitude : **W088 02 39.7** IAS : **170**

MKE150018 to 9

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

MKE15001B to 9



Project: KORD_EIS_EXP33

Printed by taam

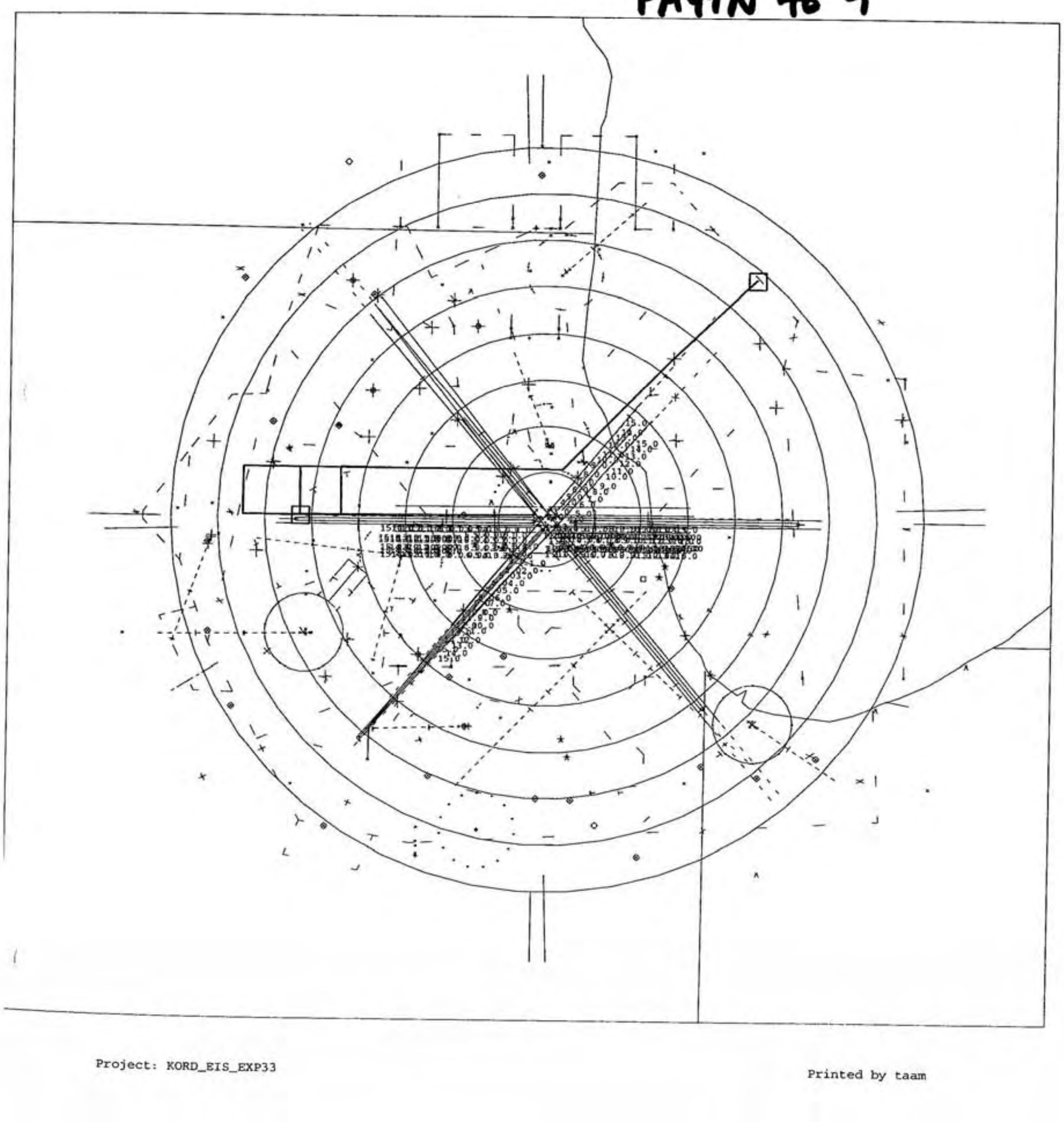
Group: Jet:	H ☑	M ☑	L ☑	Tprop:	H ☐	M ☐	L ☐	Piston: A ☐
Display:	H	M	L		H	M	L	A

Point No. **1** Point Name : **PAYTN** Altitude : **10000**	Latitude : **N42 24 40.8** DME : **None**	Longitude : **W087 24 35.7** IAS : **210 - 250**
Point No. **2** Point Name : **ORD571** Altitude : **10000**	Latitude : **N42 23 57.6** DME : **None**	Longitude : **W087 25 37.1** IAS : **210 - 250**
Point No. **3** Point Name : **PAPPI** Altitude : **10000**	Latitude : **N42 16 16.7** DME : **None**	Longitude : **W087 36 26.1** IAS : **210 - 250**
Point No. **4** Point Name : **ORD250** Altitude : **9500**	Latitude : **N42 11 47.8** DME : **None**	Longitude : **W087 42 14.2** IAS : **210 - 250**
Point No. **5** Point Name : **ORD241** Altitude : **8000**	Latitude : **N42 04 8.6** DME : **None**	Longitude : **W087 52 5.9** IAS : **210 - 250**
Point No. **6** Point Name : **ORD569** Altitude : **8000**	Latitude : **N42 04 9.8** DME : **None**	Longitude : **W088 00 23.3** IAS : **190 - 210**
Point No. **7** Point Name : **ORD565** Altitude : **8000**	Latitude : **N42 04 9.0** DME : **None**	Longitude : **W088 14 6.2** IAS : **190 - 210**
Point No. **8** Point Name : **ORD548** Altitude : **7000**	Latitude : **N42 04 10.6** DME : **None**	Longitude : **W088 29 40.8** IAS : **170 - 190**
Point No. **9** Point Name : **ORD308** Altitude : **6000**	Latitude : **N41 59 8.2** DME : **None**	Longitude : **W088 29 37.2** IAS : **170 - 190**
Point No. **10** Point Name : **ORD331** Altitude : **2200**	Latitude : **N41 59 13.3** DME : **None**	Longitude : **W088 02 39.7** IAS : **170**

PAYTN to 9

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

PAYTN to 9



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H ☑ M ☑ L ☑ Tprop: H ☐ M ☐ L ☐ Piston: A ☐

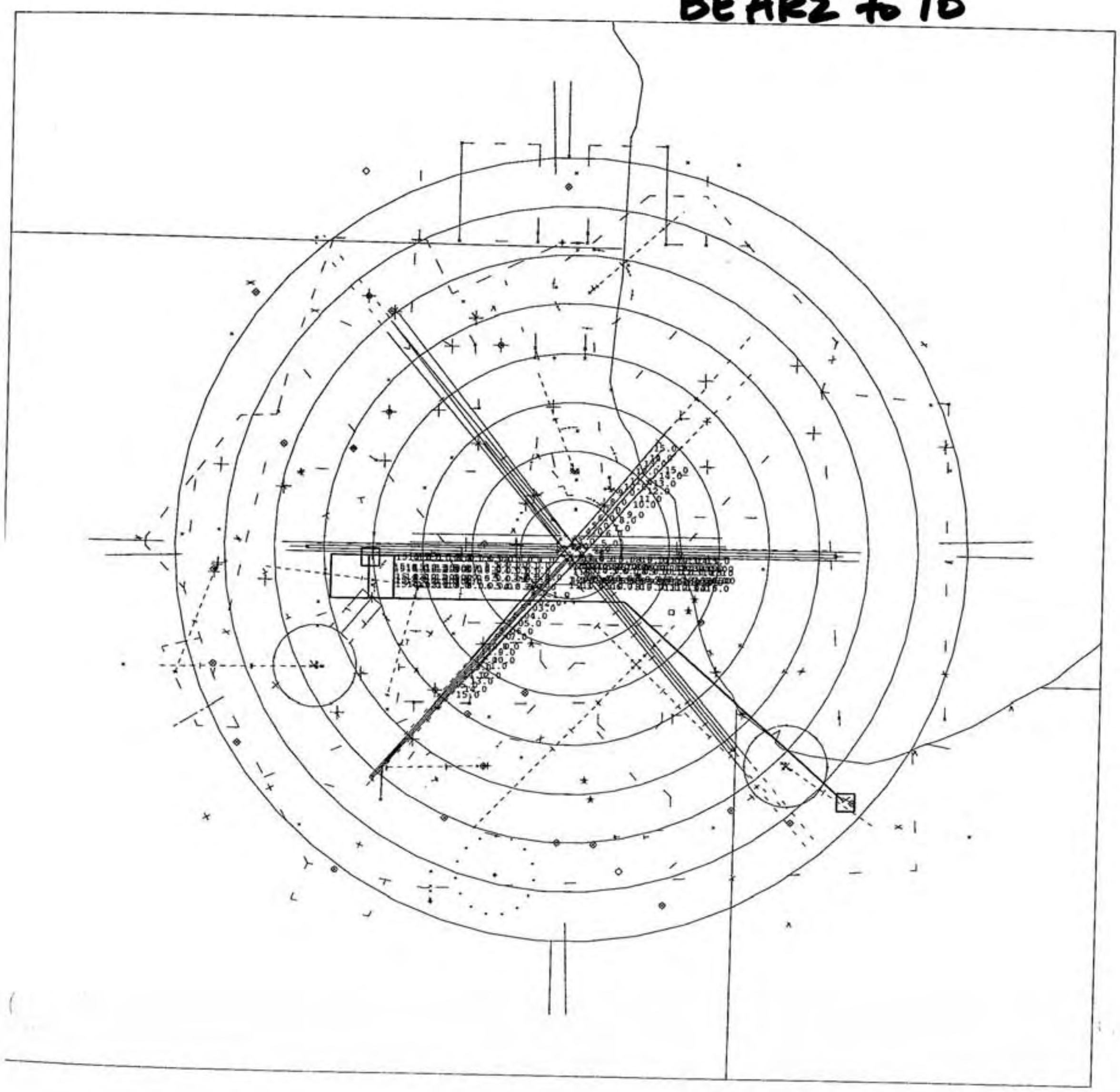
Display: H M L H M L A

Point No. 1 Point Name : **BEARZ** Altitude : **11000**	Latitude : **N41 33 36.4** DME : **None**	Longitude : **W087 16 32.9** IAS : **210 - 300**
Point No. 2 Point Name : **ORD580** Altitude : **11000**	Latitude : **N41 34 54.5** DME : **None**	Longitude : **W087 18 31.0** IAS : **210 - 300**
Point No. 3 Point Name : **ORD503** Altitude : **10000**	Latitude : **N41 53 28.8** DME : **None**	Longitude : **W087 46 51.1** IAS : **190 - 250**
Point No. 4 Point Name : **ORD529** Altitude : **10000**	Latitude : **N41 53 28.7** DME : **None**	Longitude : **W087 59 53.8** IAS : **190 - 210**
Point No. 5 Point Name : **ORD579** Altitude : **8000**	Latitude : **N41 53 25.9** DME : **None**	Longitude : **W088 13 54.6** IAS : **170 - 210**
Point No. 6 Point Name : **ORD337** Altitude : **6000**	Latitude : **N41 53 27.5** DME : **None**	Longitude : **W088 21 41.6** IAS : **170 - 210**
Point No. 7 Point Name : **ORD338** Altitude : **5000**	Latitude : **N41 57 48.0** DME : **None**	Longitude : **W088 21 40.5** IAS : **170 - 190**
Point No. 8 Point Name : **ORD342** Altitude : **5000**	Latitude : **N41 57 49.8** DME : **None**	Longitude : **W088 13 32.4** IAS : **170 - 190**
Point No. 9 Point Name : **ORD339** Altitude : **2200**	Latitude : **N41 57 53.8** DME : **None**	Longitude : **W088 03 2.9** IAS : **170**

BEARZ to 10

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

BEARZ to 10



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H ☑ M ☑ L ☑ Tprop: H ☑ M ☑ L ☑ Piston: A ☑

Display: H M L H M L A

Point No. 1
Point Name : **PAYTN** Latitude : **N42 24 40.8** Longitude : **W087 24 35.7**
Altitude : **10000** DME : **None** IAS : **210 - 250**

Point No. 2
Point Name : **ORD571** Latitude : **N42 23 57.6** Longitude : **W087 25 37.1**
Altitude : **10000** DME : **None** IAS : **210 - 250**

Point No. 3
Point Name : **PAPPI** Latitude : **N42 16 16.7** Longitude : **W087 36 26.1**
Altitude : **10000** DME : **None** IAS : **210 - 250**

Point No. 4
Point Name : **ORD250** Latitude : **N42 11 47.8** Longitude : **W087 42 14.2**
Altitude : **10000** DME : **None** IAS : **190 - 210**

Point No. 5
Point Name : **ORD529** Latitude : **N41 53 28.7** Longitude : **W087 59 53.8**
Altitude : **8000** DME : **None** IAS : **190 - 210**

Point No. 6
Point Name : **ORD337** Latitude : **N41 53 27.5** Longitude : **W088 21 41.6**
Altitude : **7000** DME : **None** IAS : **170 - 190**

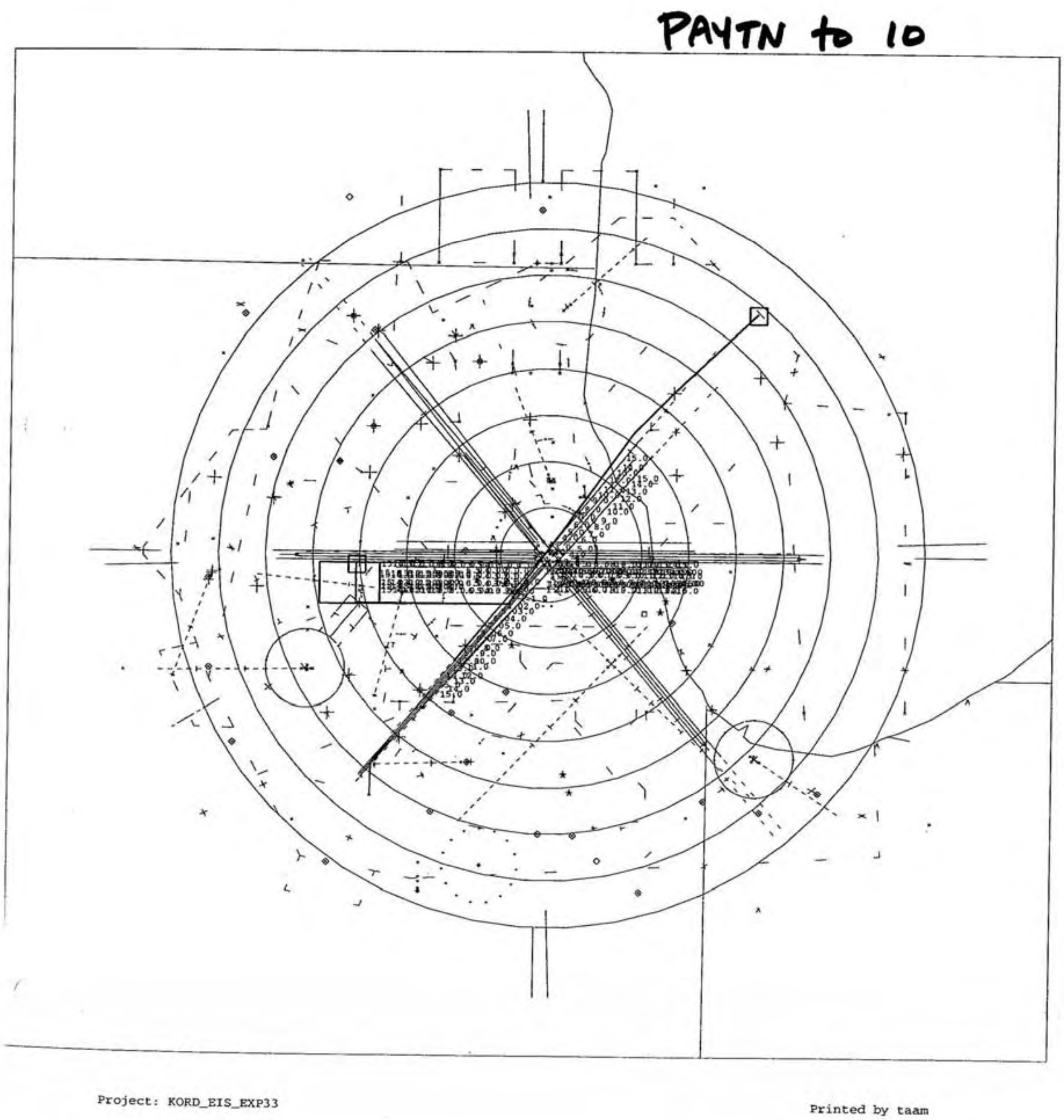
Point No. 7
Point Name : **ORD338** Latitude : **N41 57 48.0** Longitude : **W088 21 40.5**
Altitude : **5000** DME : **None** IAS : **170 - 190**

Point No. 8
Point Name : **ORD342** Latitude : **N41 57 49.8** Longitude : **W088 13 32.4**
Altitude : **5000** DME : **None** IAS : **170 - 190**

Point No. 9
Point Name : **ORD339** Latitude : **N41 57 53.8** Longitude : **W088 03 2.9**
Altitude : **2200** DME : **None** IAS : **170**

PAYTN to 10

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam


PAYTN to 10
Project: KORD_EIS_EXP33
Printed by taam

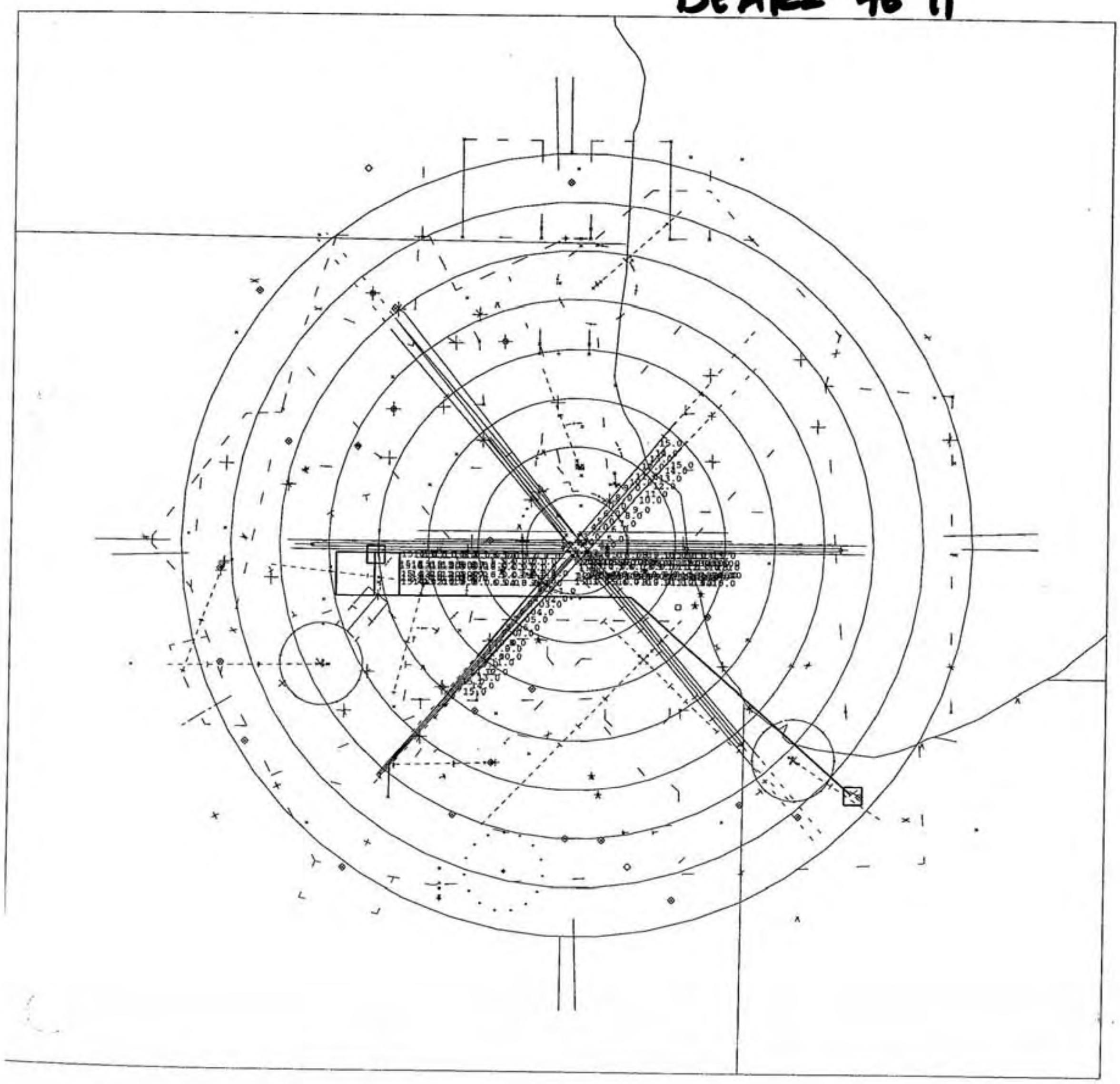
Group:	Jet:	H ☑	M ☑	L ☑	Tprop: H ☐	M ☐	L ☐	Piston:	A ☐
Display:		H	M	L	H	M	L		A

Point No. **1** Point Name : **BEARZ** Altitude : **11000**	Latitude : **N41 33 36.4** DME : **None**	Longitude : **W087 16 32.9** IAS : **210 - 300**
Point No. **2** Point Name : **ORD580** Altitude : **11000**	Latitude : **N41 34 54.5** DME : **None**	Longitude : **W087 18 31.0** IAS : **210 - 300**
Point No. **3** Point Name : **ORD503** Altitude : **10000**	Latitude : **N41 53 28.8** DME : **None**	Longitude : **W087 46 51.1** IAS : **190 - 250**
Point No. **4** Point Name : **ORD529** Altitude : **10000**	Latitude : **N41 53 28.7** DME : **None**	Longitude : **W087 59 53.8** IAS : **190 - 210**
Point No. **5** Point Name : **ORD579** Altitude : **8000**	Latitude : **N41 53 25.9** DME : **None**	Longitude : **W088 13 54.6** IAS : **170 - 210**
Point No. **6** Point Name : **ORD337** Altitude : **6000**	Latitude : **N41 53 27.5** DME : **None**	Longitude : **W088 21 41.6** IAS : **170 - 210**
Point No. **7** Point Name : **ORD338** Altitude : **5000**	Latitude : **N41 57 48.0** DME : **None**	Longitude : **W088 21 40.5** IAS : **170 - 190**
Point No. **8** Point Name : **ORD342** Altitude : **5000**	Latitude : **N41 57 49.8** DME : **None**	Longitude : **W088 13 32.4** IAS : **170 - 190**
Point No. **9** Point Name : **ORD339** Altitude : **2200**	Latitude : **N41 57 53.8** DME : **None**	Longitude : **W088 03 2.9** IAS : **170**

BEARZ to 11

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

BEAR2 to 11



Project: KORD_EIS_EXP33

Printed by taam

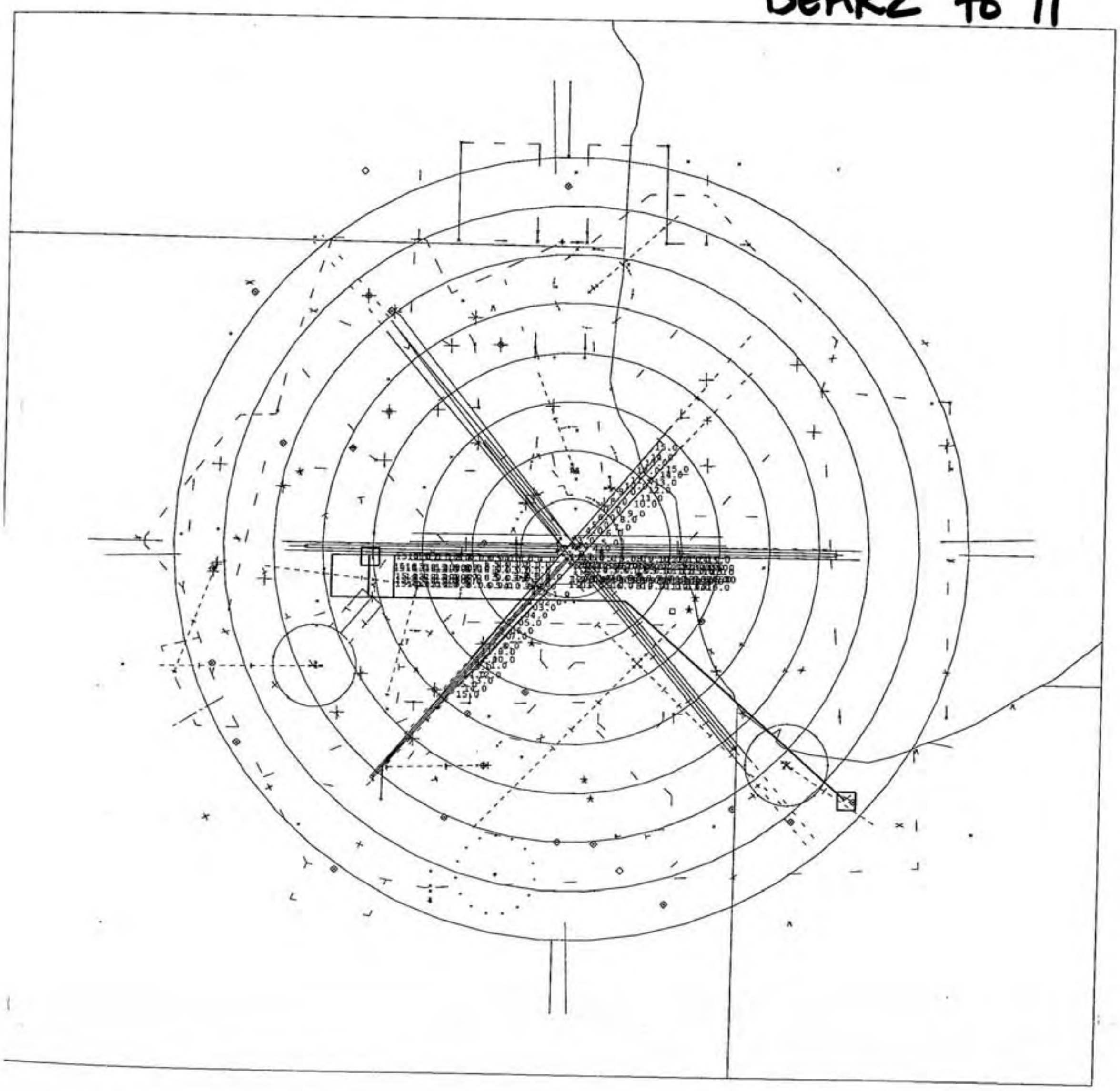
Group:	Jet:	H ☐	M ☐	L ☐	Tprop:	H ☑	M ☑	L ☑	Piston:	A ☑
Display:		H	M	L		H	M	L		A

Point No. 1 Point Name : **BEARZ** Altitude : **8000**	Latitude : **N41 33 36.4** DME : **None**	Longitude : **W087 16 32.9** IAS : **210 - 250**
Point No. 2 Point Name : **ORD580** Altitude : **8000**	Latitude : **N41 34 54.5** DME : **None**	Longitude : **W087 18 31.0** IAS : **210 - 250**
Point No. 3 Point Name : **ORD503** Altitude : **8000**	Latitude : **N41 53 28.8** DME : **None**	Longitude : **W087 46 51.1** IAS : **210 - 250**
Point No. 4 Point Name : **ORD529** Altitude : **7000**	Latitude : **N41 53 28.7** DME : **None**	Longitude : **W087 59 53.8** IAS : **190 - 210**
Point No. 5 Point Name : **ORD579** Altitude : **7000**	Latitude : **N41 53 25.9** DME : **None**	Longitude : **W088 13 54.6** IAS : **190 - 210**
Point No. 6 Point Name : **ORD337** Altitude : **6000**	Latitude : **N41 53 27.5** DME : **None**	Longitude : **W088 21 41.6** IAS : **170 - 190**
Point No. 7 Point Name : **ORD338** Altitude : **6000**	Latitude : **N41 57 48.0** DME : **None**	Longitude : **W088 21 40.5** IAS : **170 - 190**
Point No. 8 Point Name : **ORD342** Altitude : **5000**	Latitude : **N41 57 49.8** DME : **None**	Longitude : **W088 13 32.4** IAS : **170 - 190**
Point No. 9 Point Name : **ORD339** Altitude : **None**	Latitude : **N41 57 53.8** DME : **None**	Longitude : **W088 03 2.9** IAS : **170**

BEARZ to 11

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

BEARZ to 11



Project: KORD_EIS_EXP33

Printed by taam

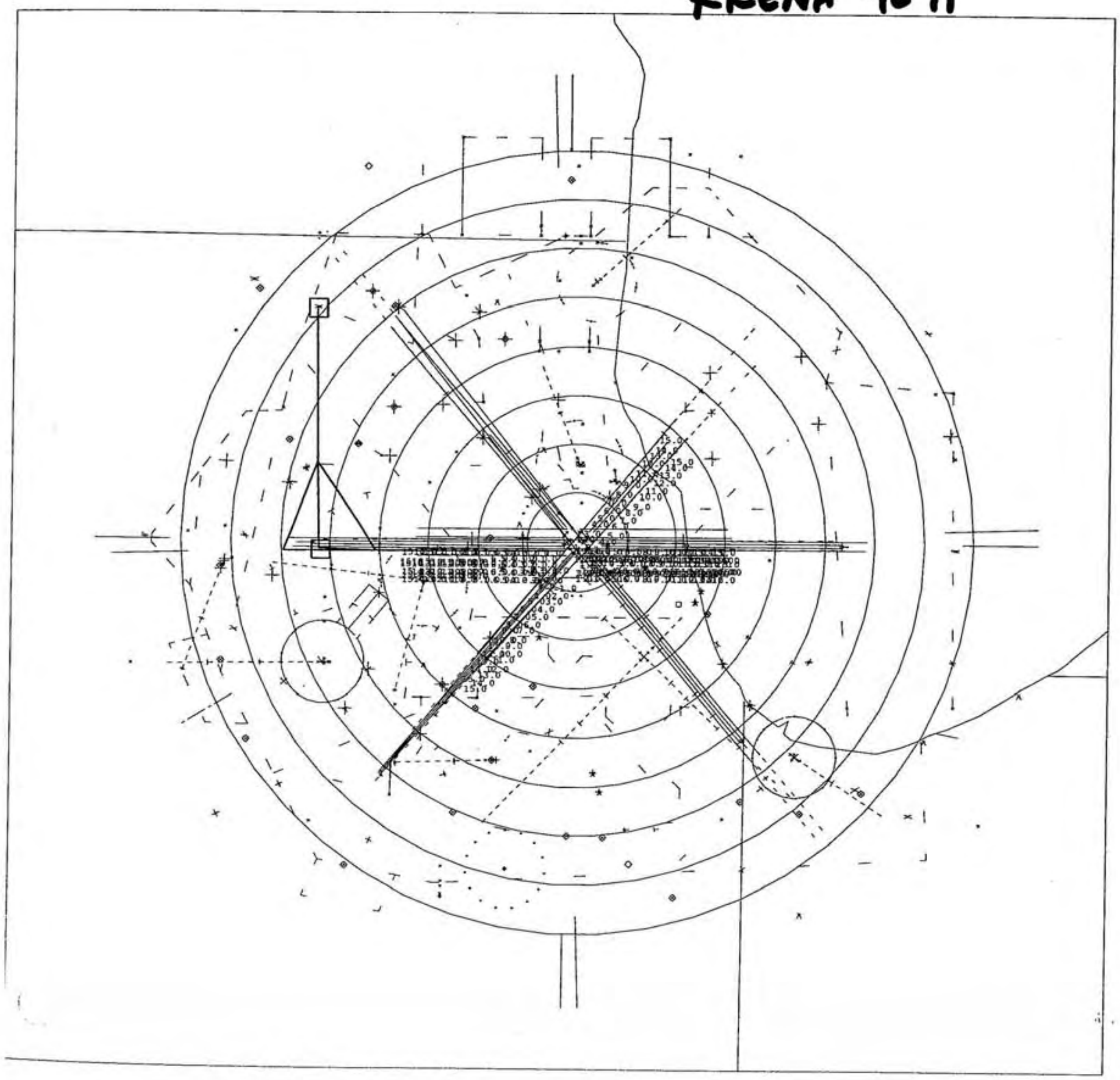
Group: Jet:	H ☑	M ☑	L ☑	Tprop:	H ☑	M ☑	L ☑	Piston:	A ☑
Display:	H	M	L		H	M	L		A

Point No. **1** Point Name : **KRENA** Altitude : **9000**	Latitude : **N42 22 29.6** DME : **None**	Longitude : **W088 29 58.1** IAS : **190 - 250**
Point No. **2** Point Name : **ORD384** Altitude : **9000**	Latitude : **N42 21 24.6** DME : **None**	Longitude : **W088 29 58.1** IAS : **190 - 250**
Point No. **3** Point Name : **ORD598** Altitude : **7000**	Latitude : **N42 15 24.5** DME : **None**	Longitude : **W088 29 52.4** IAS : **190 - 210**
Point No. **4** Point Name : **ORD575** Altitude : **7000**	Latitude : **N42 06 44.7** DME : **None**	Longitude : **W088 29 43.2** IAS : **190 - 210**
Point No. **5** Point Name : **ORD332** Altitude : **6000**	Latitude : **N41 58 0.4** DME : **None**	Longitude : **W088 29 27.7** IAS : **170 - 190**
Point No. **6** Point Name : **ORD338** Altitude : **5000**	Latitude : **N41 57 48.0** DME : **None**	Longitude : **W088 21 40.5** IAS : **170 - 190**
Point No. **7** Point Name : **ORD339** Altitude : **2200**	Latitude : **N41 57 53.8** DME : **None**	Longitude : **W088 03 2.9** IAS : **170**

KRENA to 11

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

KRENA to 11



Project: KORD_EIS_EXP33

Printed by taam

Group: Jet: H ☑ M ☑ L ☑ Tprop: H ☑ M ☑ L ☑ Piston: A ☑

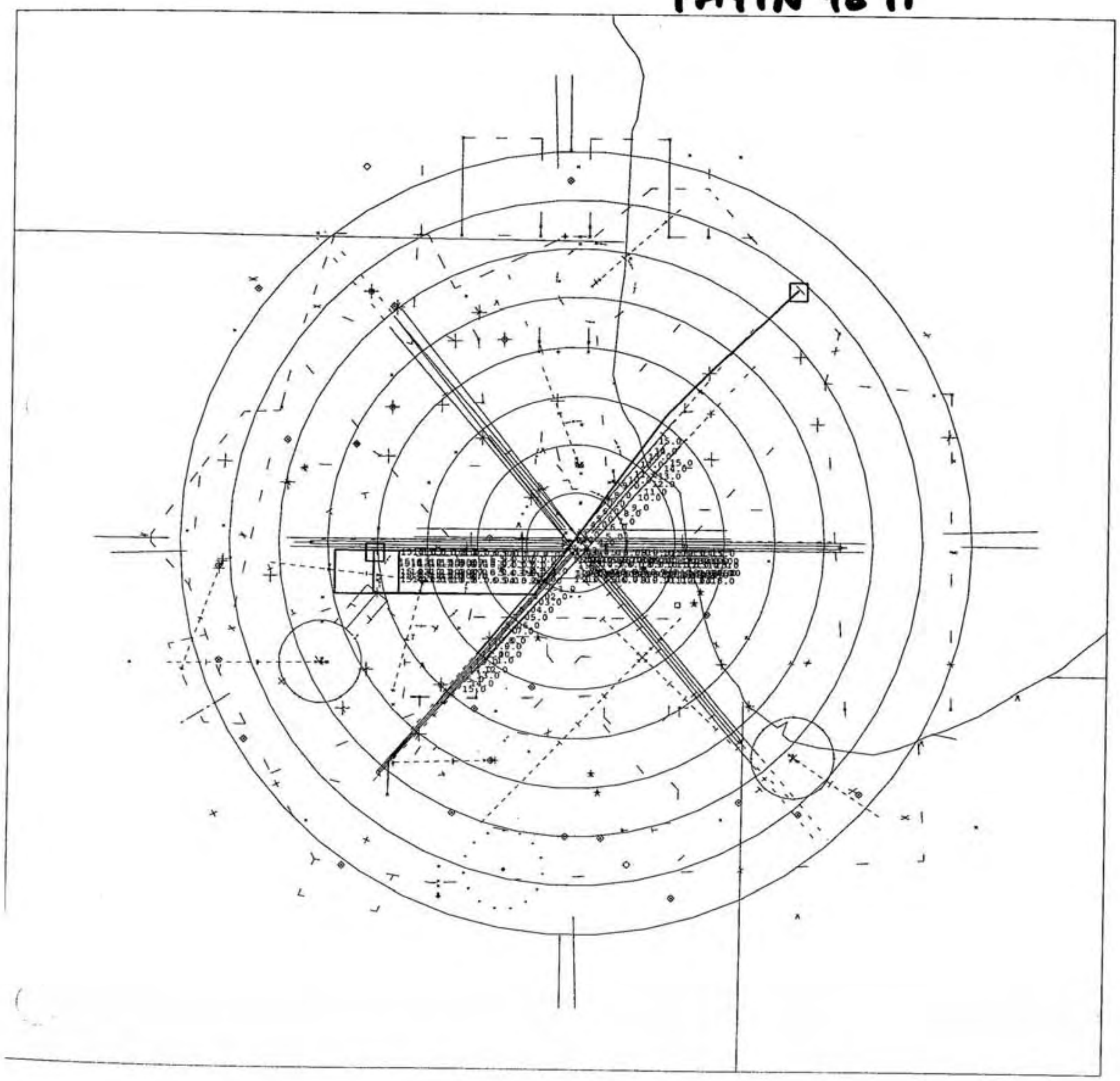
Display: H M L H M L A

Point No. **1** Point Name : **PAYTN** Altitude : **10000**	Latitude : **N42 24 40.8** DME : **None**	Longitude : **W087 24 35.7** IAS : **210 - 250**
Point No. **2** Point Name : **ORD571** Altitude : **10000**	Latitude : **N42 23 57.6** DME : **None**	Longitude : **W087 25 37.1** IAS : **210 - 250**
Point No. **3** Point Name : **PAPPI** Altitude : **10000**	Latitude : **N42 16 16.7** DME : **None**	Longitude : **W087 36 26.1** IAS : **210 - 250**
Point No. **4** Point Name : **ORD250** Altitude : **10000**	Latitude : **N42 11 47.8** DME : **None**	Longitude : **W087 42 14.2** IAS : **190 - 210**
Point No. **5** Point Name : **ORD529** Altitude : **8000**	Latitude : **N41 53 28.7** DME : **None**	Longitude : **W087 59 53.8** IAS : **190 - 210**
Point No. **6** Point Name : **ORD337** Altitude : **7000**	Latitude : **N41 53 27.5** DME : **None**	Longitude : **W088 21 41.6** IAS : **170 - 190**
Point No. **7** Point Name : **ORD338** Altitude : **5000**	Latitude : **N41 57 48.0** DME : **None**	Longitude : **W088 21 40.5** IAS : **170 - 190**
Point No. **8** Point Name : **ORD342** Altitude : **5000**	Latitude : **N41 57 49.8** DME : **None**	Longitude : **W088 13 32.4** IAS : **170 - 190**
Point No. **9** Point Name : **ORD339** Altitude : **2200**	Latitude : **N41 57 53.8** DME : **None**	Longitude : **W088 03 2.9** IAS : **170**

PAYTN to 11

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

PAYTN to 11



Project: KORD_EIS_EXP33

Printed by taam

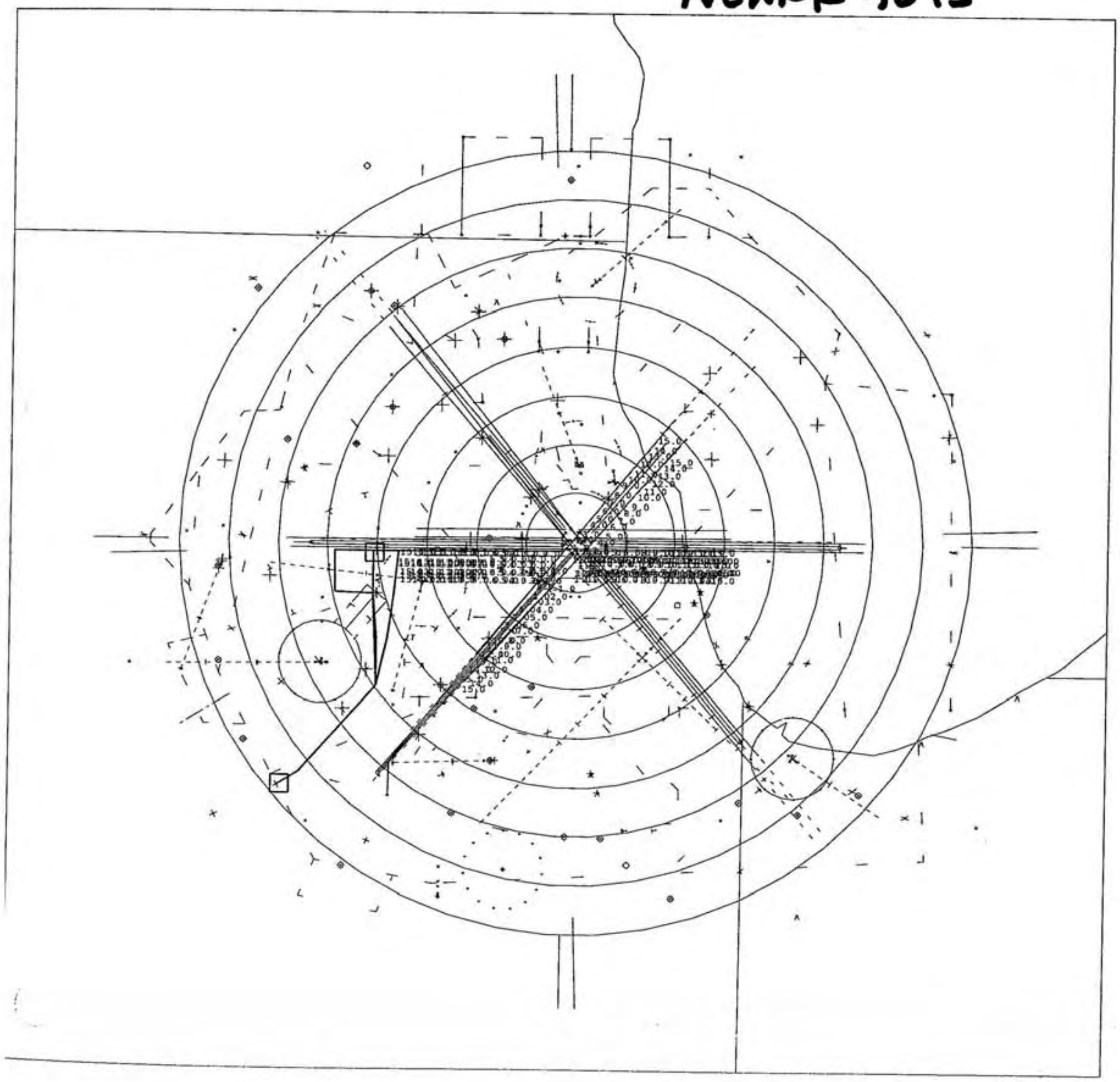
Group:	Jet:	H ☑	M ☑	L ☑	Tprop:	H ☐	M ☐	L ☐	Piston:	A ☐
Display:		H	M	L		H	M	L		A

Point No. **1**		
Point Name : **NEWRK**	Latitude : **N41 33 58.1**	Longitude : **W088 34 16.0**
Altitude : **11000**	DME : **None**	IAS : **210 - 300**
Point No. **2**		
Point Name : **NEWRK_FIX**	Latitude : **N41 35 14.5**	Longitude : **W088 31 31.0**
Altitude : **11000**	DME : **None**	IAS : **210 - 300**
Point No. **3**		
Point Name : **ORD2B**	Latitude : **N41 44 0.9**	Longitude : **W088 21 7.0**
Altitude : **7000**	DME : **None**	IAS : **190 - 250**
Point No. **4**		
Point Name : **ORD1A**	Latitude : **N41 48 47.2**	Longitude : **W088 21 7.0**
Altitude : **7000**	DME : **None**	IAS : **190 - 210**
Point No. **5**		
Point Name : **ORD337**	Latitude : **N41 53 27.5**	Longitude : **W088 21 41.6**
Altitude : **6000**	DME : **None**	IAS : **170 - 190**
Point No. **6**		
Point Name : **ORD338**	Latitude : **N41 57 48.0**	Longitude : **W088 21 40.5**
Altitude : **5000**	DME : **None**	IAS : **170 - 210**
Point No. **7**		
Point Name : **ORD342**	Latitude : **N41 57 49.8**	Longitude : **W088 13 32.4**
Altitude : **4000**	DME : **None**	IAS : **170 - 190**
Point No. **8**		
Point Name : **ORD339**	Latitude : **N41 57 53.8**	Longitude : **W088 03 2.9**
Altitude : **2200**	DME : **None**	IAS : **170**

NEWRK to 13

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

NEWRK to 13



Project: KORD_EIS_EXP33

Printed by taam

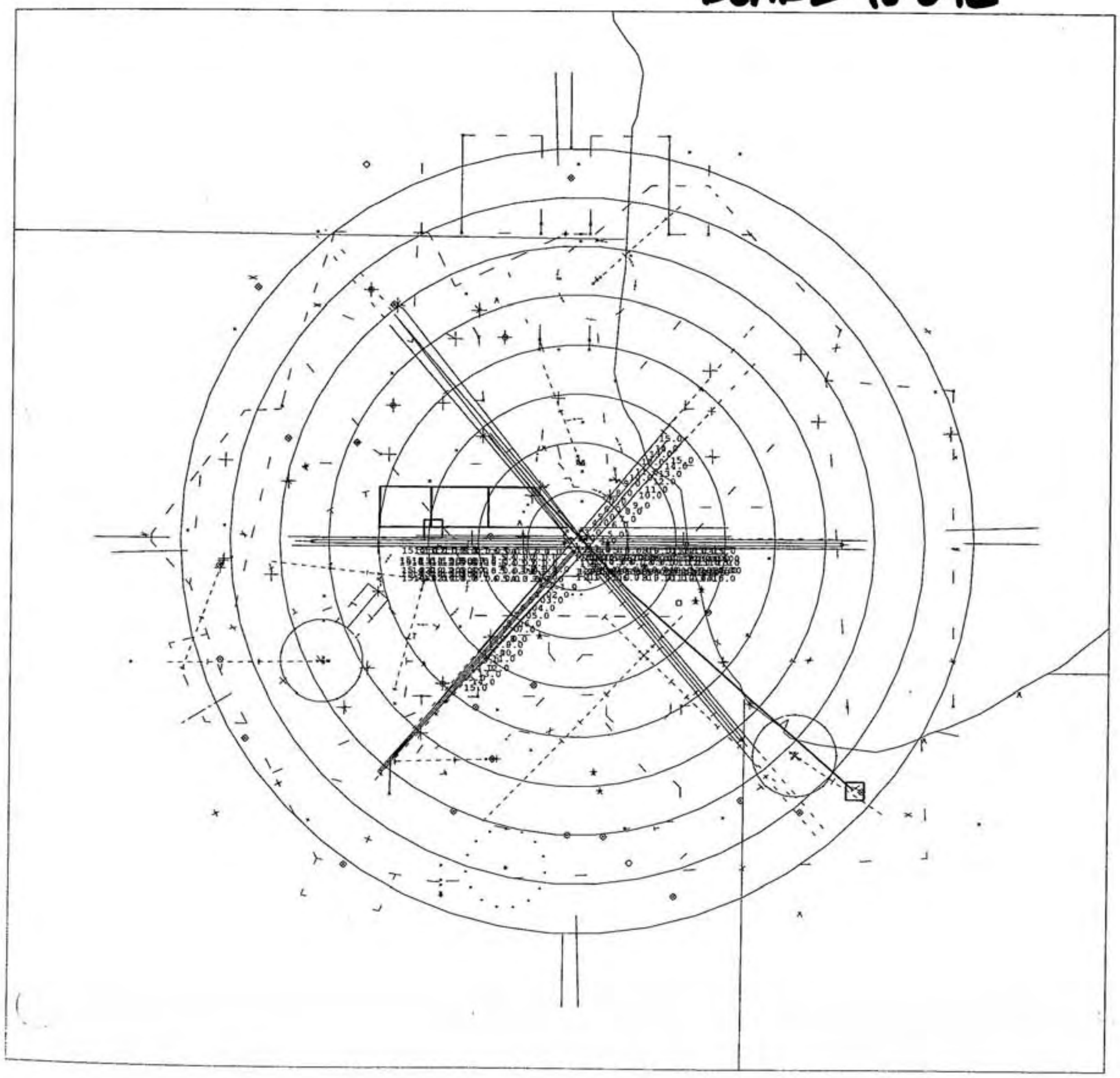
Group:	Jet:	H ☑	M ☑	L ☑	Tprop:	H ☐	M ☐	L ☐	Piston:	A ☐
Display:		H	M	L		H	M	L		A

Point No. **1** Point Name : **BEARZ** Altitude : **11000**	Latitude : **N41 33 36.4** DME : **None**	Longitude : **W087 16 32.9** IAS : **210 - 300**
Point No. **2** Point Name : **ORD580** Altitude : **11000**	Latitude : **N41 34 54.5** DME : **None**	Longitude : **W087 18 31.0** IAS : **210 - 300**
Point No. **3** Point Name : **ORD503** Altitude : **8000**	Latitude : **N41 53 28.8** DME : **None**	Longitude : **W087 46 51.1** IAS : **190 - 250**
Point No. **4** Point Name : **ORD569** Altitude : **7000**	Latitude : **N42 04 9.8** DME : **None**	Longitude : **W088 00 23.3** IAS : **170 - 210**
Point No. **5** Point Name : **ORD565** Altitude : **6000**	Latitude : **N42 04 9.0** DME : **None**	Longitude : **W088 14 6.2** IAS : **170 - 210**
Point No. **6** Point Name : **ORD563** Altitude : **4000**	Latitude : **N42 00 7.0** DME : **None**	Longitude : **W088 14 6.4** IAS : **170 - 210**
Point No. **7** Point Name : **ORD562** Altitude : **2200**	Latitude : **N42 00 8.3** DME : **None**	Longitude : **W088 02 23.1** IAS : **170**

BEARZ to 09L

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

BEARZ to 09L



Project: KORD_EIS_EXP33

Printed by taam

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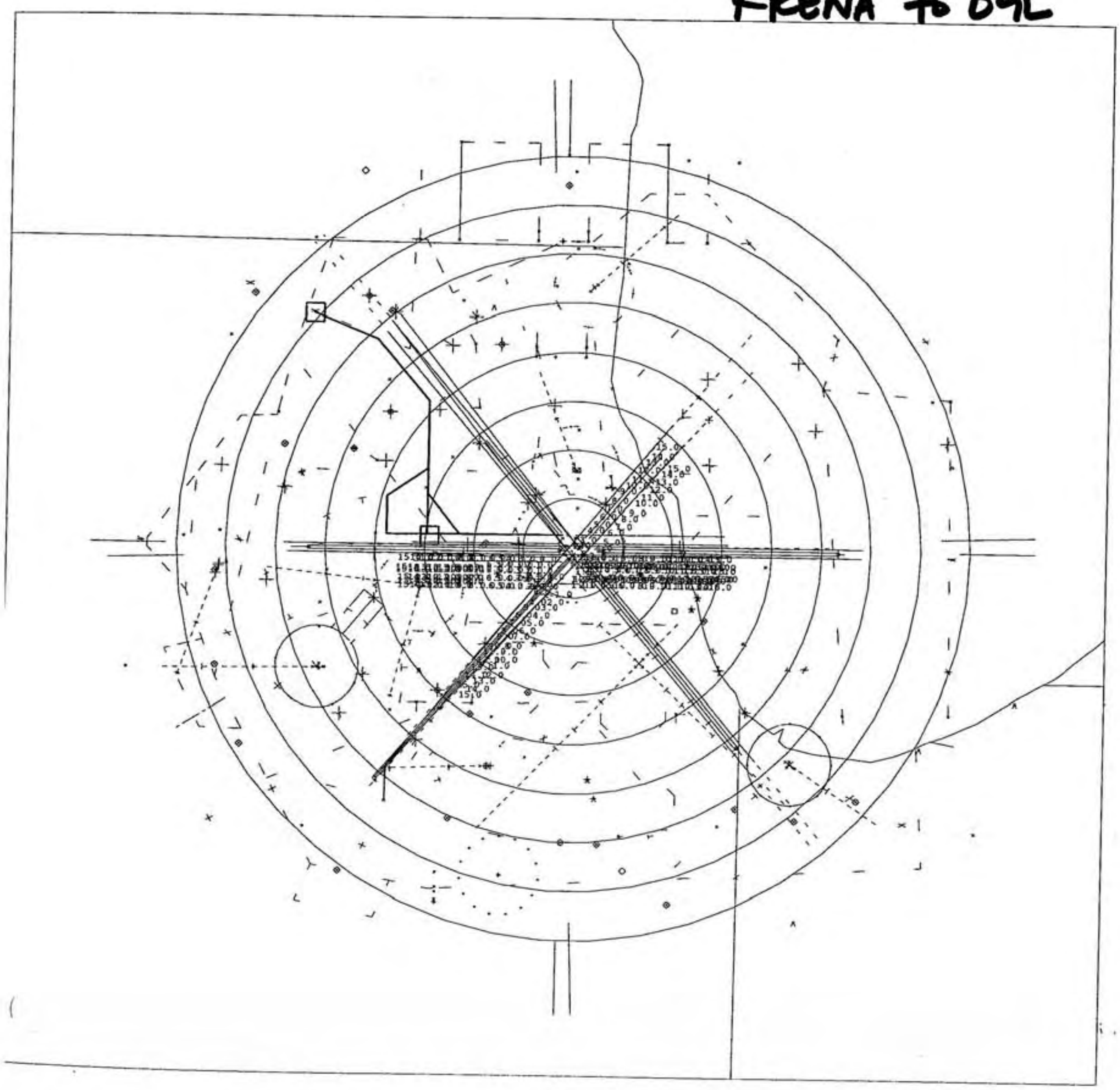
Display:		H	M	L		H	M	L	A

Point No. **1** Point Name : **KRENA** Altitude : **9000**	Latitude : **N42 22 29.6** DME : **None**	Longitude : **W088 29 58.1** IAS : **190 - 250**
Point No. **2** Point Name : **ORD671** Altitude : **9000**	Latitude : **N42 22 0.7** DME : **None**	Longitude : **W088 28 20.5** IAS : **190 - 250**
Point No. **3** Point Name : **FARMM** Altitude : **7000**	Latitude : **N42 19 54.1** DME : **None**	Longitude : **W088 21 13.5** IAS : **190 - 210**
Point No. **4** Point Name : **ORD216** Altitude : **7000**	Latitude : **N42 13 39.4** DME : **None**	Longitude : **W088 14 7.1** IAS : **170 - 210**
Point No. **5** Point Name : **ORD566** Altitude : **7000**	Latitude : **N42 06 43.7** DME : **None**	Longitude : **W088 14 7.6** IAS : **170 - 210**
Point No. **6** Point Name : **ORD565** Altitude : **6000**	Latitude : **N42 04 9.0** DME : **None**	Longitude : **W088 14 6.2** IAS : **170 - 210**
Point No. **7** Point Name : **ORD563** Altitude : **4000**	Latitude : **N42 00 7.0** DME : **None**	Longitude : **W088 14 6.4** IAS : **170 - 210**
Point No. **8** Point Name : **ORD562** Altitude : **2200**	Latitude : **N42 00 8.3** DME : **None**	Longitude : **W088 02 23.1** IAS : **170**

KRENA to 09L

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

KRENA to 09L



Project: KORD_EIS_EXP33

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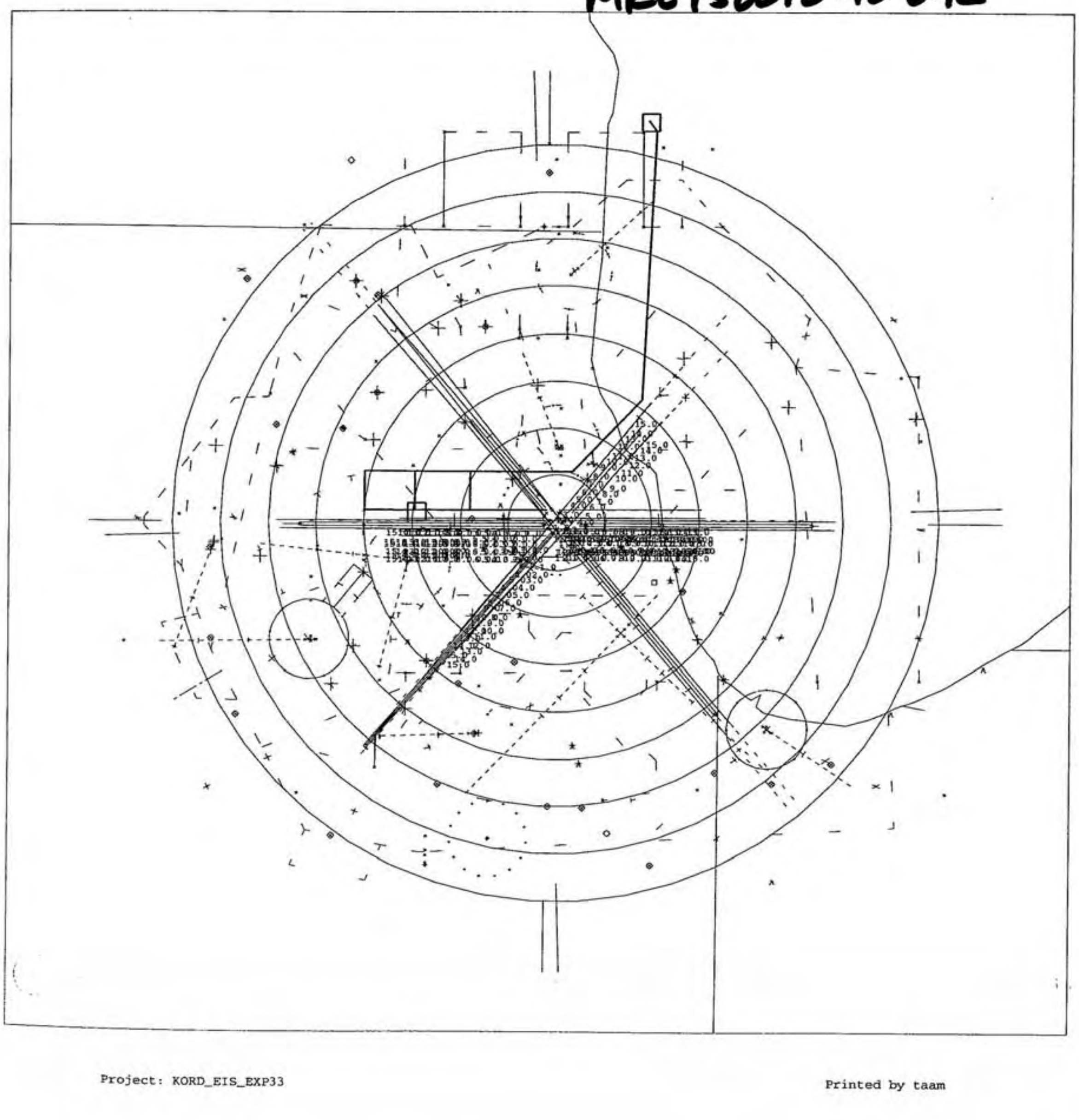
Display:		H	M	L		H	M	L		A

Point No. **1** Point Name : **MKE150018** Altitude : **8000**	Latitude : **N42 41 17.6** DME : **None**	Longitude : **W087 41 29.8** IAS : **190 - 250**
Point No. **2** Point Name : **ORD570** Altitude : **8000**	Latitude : **N42 40 8.8** DME : **None**	Longitude : **W087 40 23.2** IAS : **190 - 250**
Point No. **3** Point Name : **ORD250** Altitude : **7000**	Latitude : **N42 11 47.8** DME : **None**	Longitude : **W087 42 14.2** IAS : **190 - 250**
Point No. **4** Point Name : **ORD241** Altitude : **7000**	Latitude : **N42 04 8.6** DME : **None**	Longitude : **W087 52 5.9** IAS : **190 - 210**
Point No. **5** Point Name : **ORD569** Altitude : **7000**	Latitude : **N42 04 9.8** DME : **None**	Longitude : **W088 00 23.3** IAS : **190 - 210**
Point No. **6** Point Name : **ORD565** Altitude : **6000**	Latitude : **N42 04 9.0** DME : **None**	Longitude : **W088 14 6.2** IAS : **170 - 190**
Point No. **7** Point Name : **ORD563** Altitude : **4000**	Latitude : **N42 00 7.0** DME : **None**	Longitude : **W088 14 6.4** IAS : **170 - 190**
Point No. **8** Point Name : **ORD562** Altitude : **2200**	Latitude : **N42 00 8.3** DME : **None**	Longitude : **W088 02 23.1** IAS : **170**

MKE150018 to 09L

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

MKE150018 to 09L



Project: KORD_EIS_EXP33

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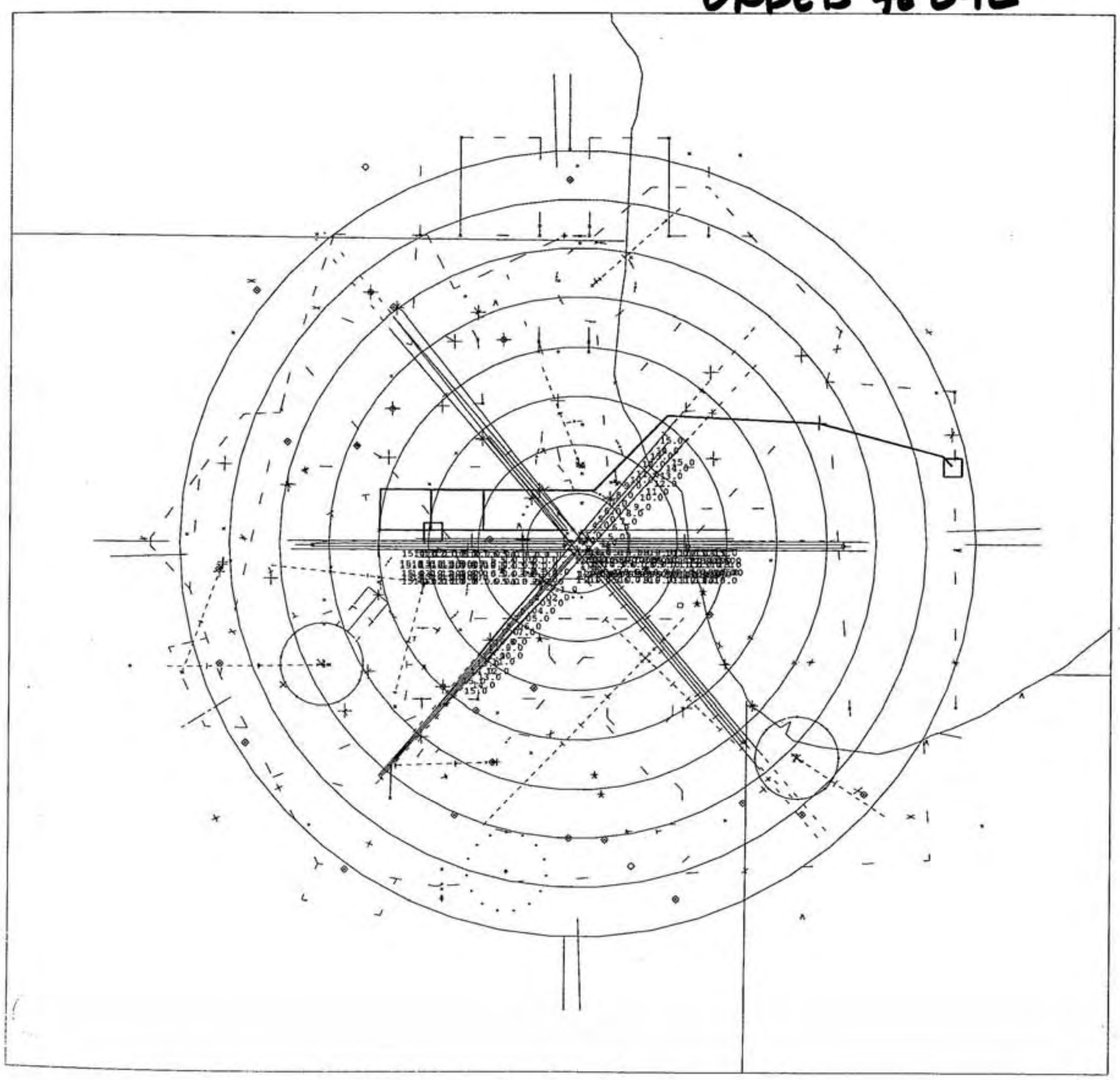
Display:		H	M	L		H	M	L		A

Point No. **1** Point Name : **ORDEB** Altitude : **7000**	Latitude : **N42 06 44.9** DME : **None**	Longitude : **W087 03 48.1** IAS : **190 - 250**
Point No. **2** Point Name : **ORD385** Altitude : **7000**	Latitude : **N42 07 43.1** DME : **None**	Longitude : **W087 05 0.6** IAS : **190 - 250**
Point No. **3** Point Name : **BRAIK** Altitude : **7000**	Latitude : **N42 11 2.2** DME : **None**	Longitude : **W087 21 43.8** IAS : **190 - 250**
Point No. **4** Point Name : **ORD250** Altitude : **7000**	Latitude : **N42 11 47.8** DME : **None**	Longitude : **W087 42 14.2** IAS : **190 - 210**
Point No. **5** Point Name : **ORD241** Altitude : **7000**	Latitude : **N42 04 8.6** DME : **None**	Longitude : **W087 52 5.9** IAS : **170 - 210**
Point No. **6** Point Name : **ORD569** Altitude : **7000**	Latitude : **N42 04 9.8** DME : **None**	Longitude : **W088 00 23.3** IAS : **170 - 210**
Point No. **7** Point Name : **ORD565** Altitude : **6000**	Latitude : **N42 04 9.0** DME : **None**	Longitude : **W088 14 6.2** IAS : **170 - 210**
Point No. **8** Point Name : **ORD563** Altitude : **4000**	Latitude : **N42 00 7.0** DME : **None**	Longitude : **W088 14 6.4** IAS : **170 - 210**
Point No. **9** Point Name : **ORD562** Altitude : **2200**	Latitude : **N42 00 8.3** DME : **None**	Longitude : **W088 02 23.1** IAS : **170**

ORDEB to 09L

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

ORDEB to 09L



Project: KORD_EIS_EXP33

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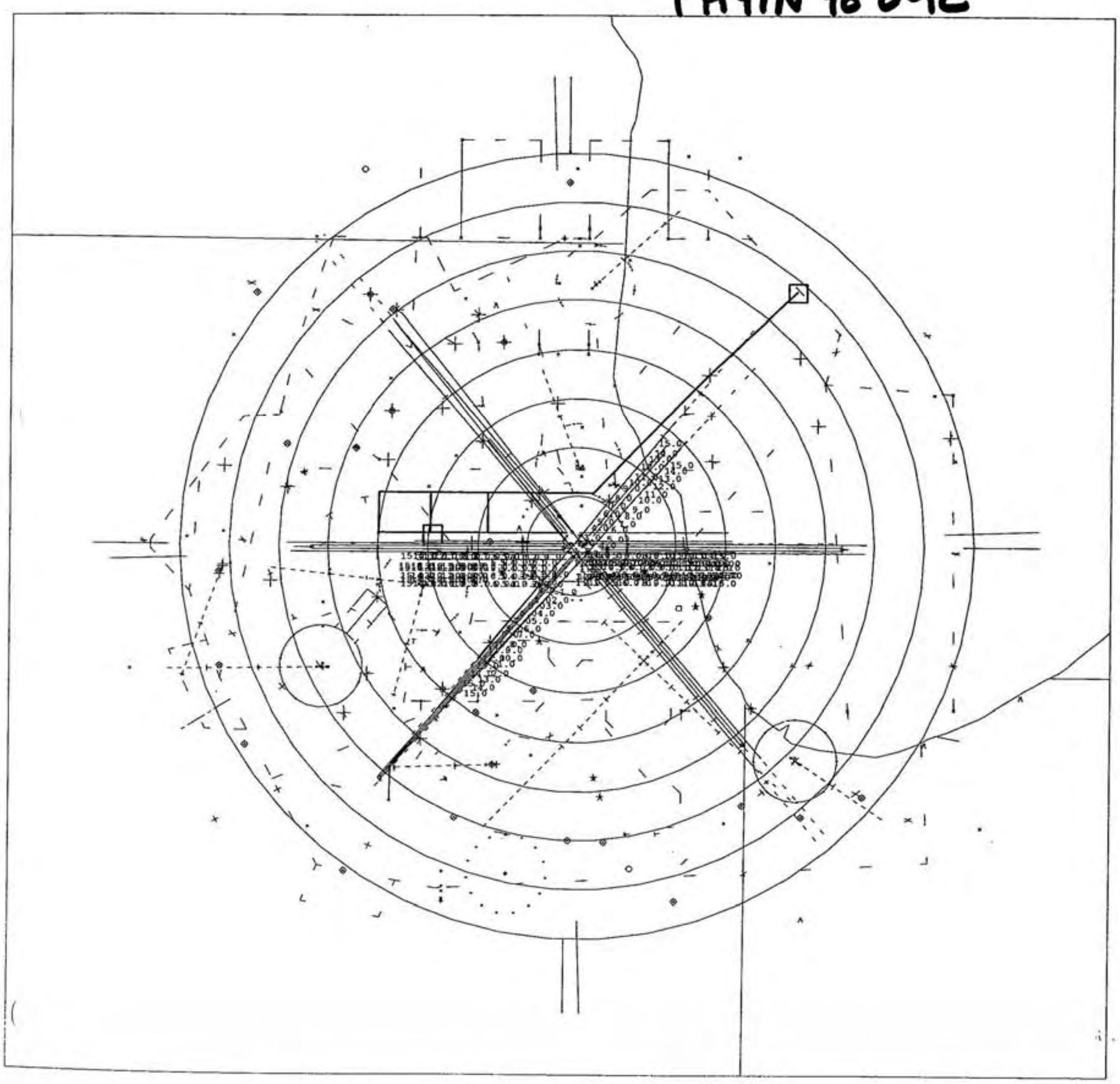
Display:	H	M	L		H	M	L		A

Point	Latitude / DME	Longitude / IAS
Point No. **1** Point Name : **PAYTN** Altitude : **10000**	Latitude : **N42 24 40.8** DME : **None**	Longitude : **W087 24 35.7** IAS : **210 - 250**
Point No. **2** Point Name : **ORD571** Altitude : **10000**	Latitude : **N42 23 57.6** DME : **None**	Longitude : **W087 25 37.1** IAS : **210 - 250**
Point No. **3** Point Name : **PAPPI** Altitude : **10000**	Latitude : **N42 16 16.7** DME : **None**	Longitude : **W087 36 26.1** IAS : **210 - 250**
Point No. **4** Point Name : **ORD250** Altitude : **9500**	Latitude : **N42 11 47.8** DME : **None**	Longitude : **W087 42 14.2** IAS : **210 - 250**
Point No. **5** Point Name : **ORD241** Altitude : **8000**	Latitude : **N42 04 8.6** DME : **None**	Longitude : **W087 52 5.9** IAS : **190 - 210**
Point No. **6** Point Name : **ORD569** Altitude : **7000**	Latitude : **N42 04 9.8** DME : **None**	Longitude : **W088 00 23.3** IAS : **190 - 210**
Point No. **7** Point Name : **ORD565** Altitude : **6000**	Latitude : **N42 04 9.0** DME : **None**	Longitude : **W088 14 6.2** IAS : **170 - 190**
Point No. **8** Point Name : **ORD563** Altitude : **4000**	Latitude : **N42 00 7.0** DME : **None**	Longitude : **W088 14 6.4** IAS : **170 - 190**
Point No. **9** Point Name : **ORD562** Altitude : **2200**	Latitude : **N42 00 8.3** DME : **None**	Longitude : **W088 02 23.1** IAS : **170**

PAYTN to 09L

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

PAYTN to 09L



Project: KORD_EIS_EXP33

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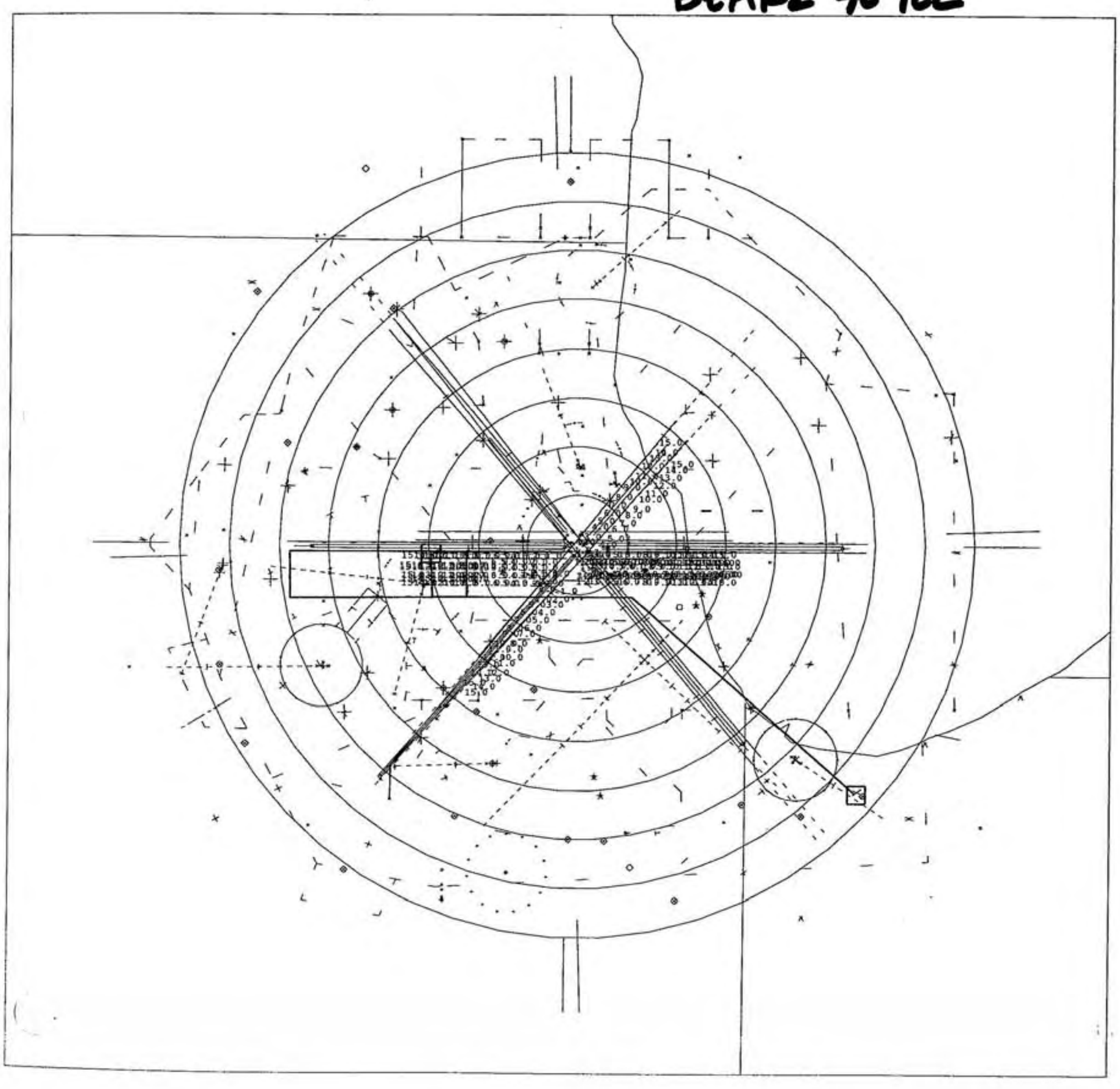
Display:		H	M	L		H	M	L		A

Point No. **1** Point Name : **BEARZ** Altitude : **11000**	Latitude : **N41 33 36.4** DME : **None**	Longitude : **W087 16 32.9** IAS : **210 - 300**
Point No. **2** Point Name : **ORD580** Altitude : **11000**	Latitude : **N41 34 54.5** DME : **None**	Longitude : **W087 18 31.0** IAS : **210 - 300**
Point No. **3** Point Name : **ORD503** Altitude : **8000**	Latitude : **N41 53 28.8** DME : **None**	Longitude : **W087 46 51.1** IAS : **190 - 250**
Point No. **4** Point Name : **ORD529** Altitude : **7000**	Latitude : **N41 53 28.7** DME : **None**	Longitude : **W087 59 53.8** IAS : **190 - 210**
Point No. **5** Point Name : **ORD579** Altitude : **6000**	Latitude : **N41 53 25.9** DME : **None**	Longitude : **W088 13 54.6** IAS : **170 - 210**
Point No. **6** Point Name : **ORD383** Altitude : **5000**	Latitude : **N41 58 1.8** DME : **None**	Longitude : **W088 14 8.0** IAS : **170 - 210**
Point No. **7** Point Name : **ORD581** Altitude : **2200**	Latitude : **N41 58 5.9** DME : **None**	Longitude : **W088 03 3.3** IAS : **170**

BEARZ to 10L

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

BEARZ to 10L



Project: KORD_EIS_EXP33

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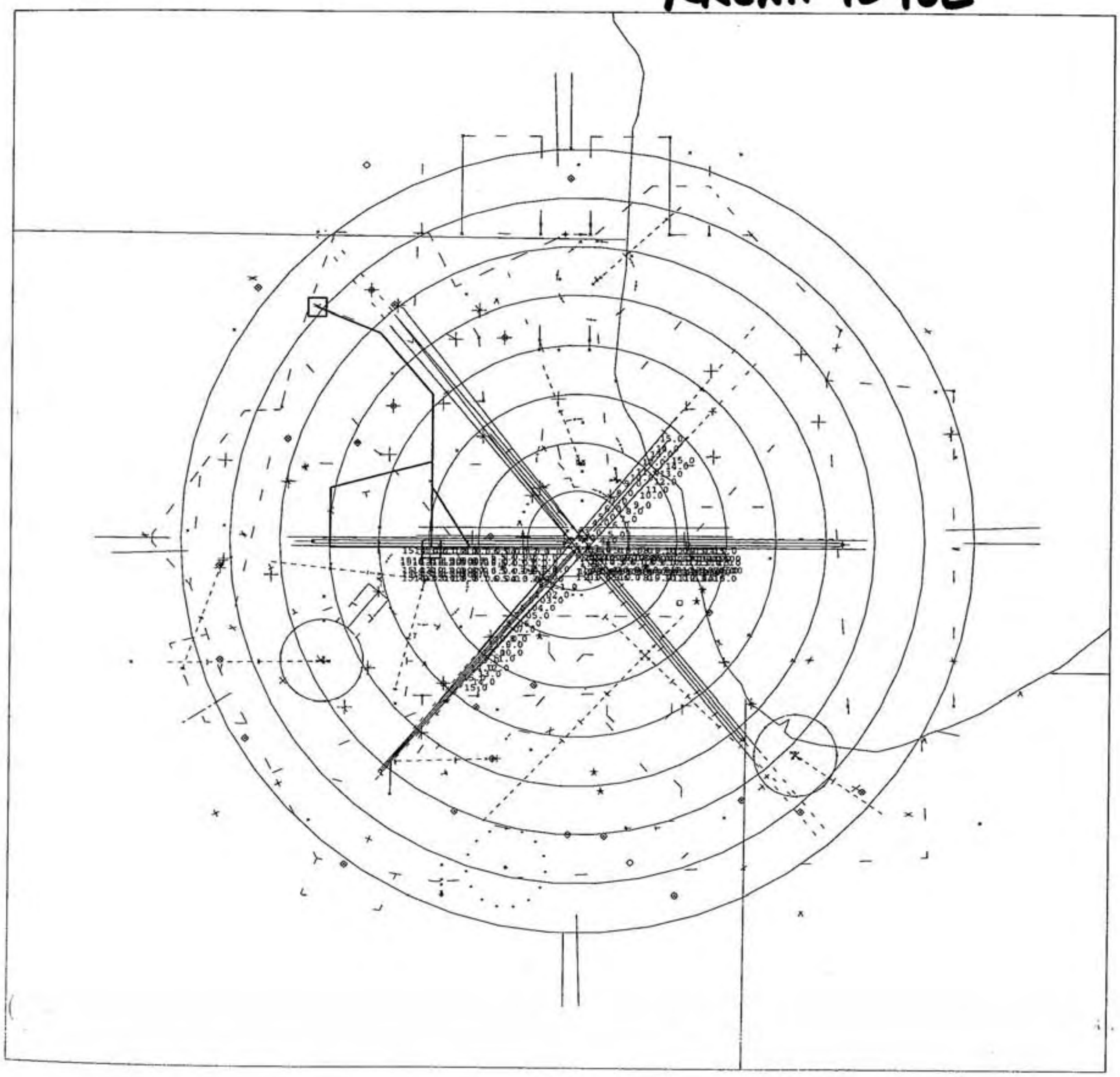
Display:	H	M	L		H	M	L		A

Point No. **1** Point Name : **KRENA** Altitude : **9000**	Latitude : **N42 22 29.6** DME : **None**	Longitude : **W088 29 58.1** IAS : **190 - 250**
Point No. **2** Point Name : **ORD671** Altitude : **9000**	Latitude : **N42 22 0.7** DME : **None**	Longitude : **W088 28 20.5** IAS : **190 - 250**
Point No. **3** Point Name : **FARMM** Altitude : **7000**	Latitude : **N42 19 54.1** DME : **None**	Longitude : **W088 21 13.5** IAS : **190 - 210**
Point No. **4** Point Name : **ORD216** Altitude : **7000**	Latitude : **N42 13 39.4** DME : **None**	Longitude : **W088 14 7.1** IAS : **190 - 210**
Point No. **5** Point Name : **ORD566** Altitude : **7000**	Latitude : **N42 06 43.7** DME : **None**	Longitude : **W088 14 7.6** IAS : **170 - 210**
Point No. **6** Point Name : **ORD565** Altitude : **6000**	Latitude : **N42 04 9.0** DME : **None**	Longitude : **W088 14 6.2** IAS : **170 - 210**
Point No. **7** Point Name : **ORD383** Altitude : **5000**	Latitude : **N41 58 1.8** DME : **None**	Longitude : **W088 14 8.0** IAS : **170 - 190**
Point No. **8** Point Name : **ORD581** Altitude : **2200**	Latitude : **N41 58 5.9** DME : **None**	Longitude : **W088 03 3.3** IAS : **170**

KRENA to 10L

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

KRENA to 10L



Project: KORD_EIS_EXP33

Printed by taam

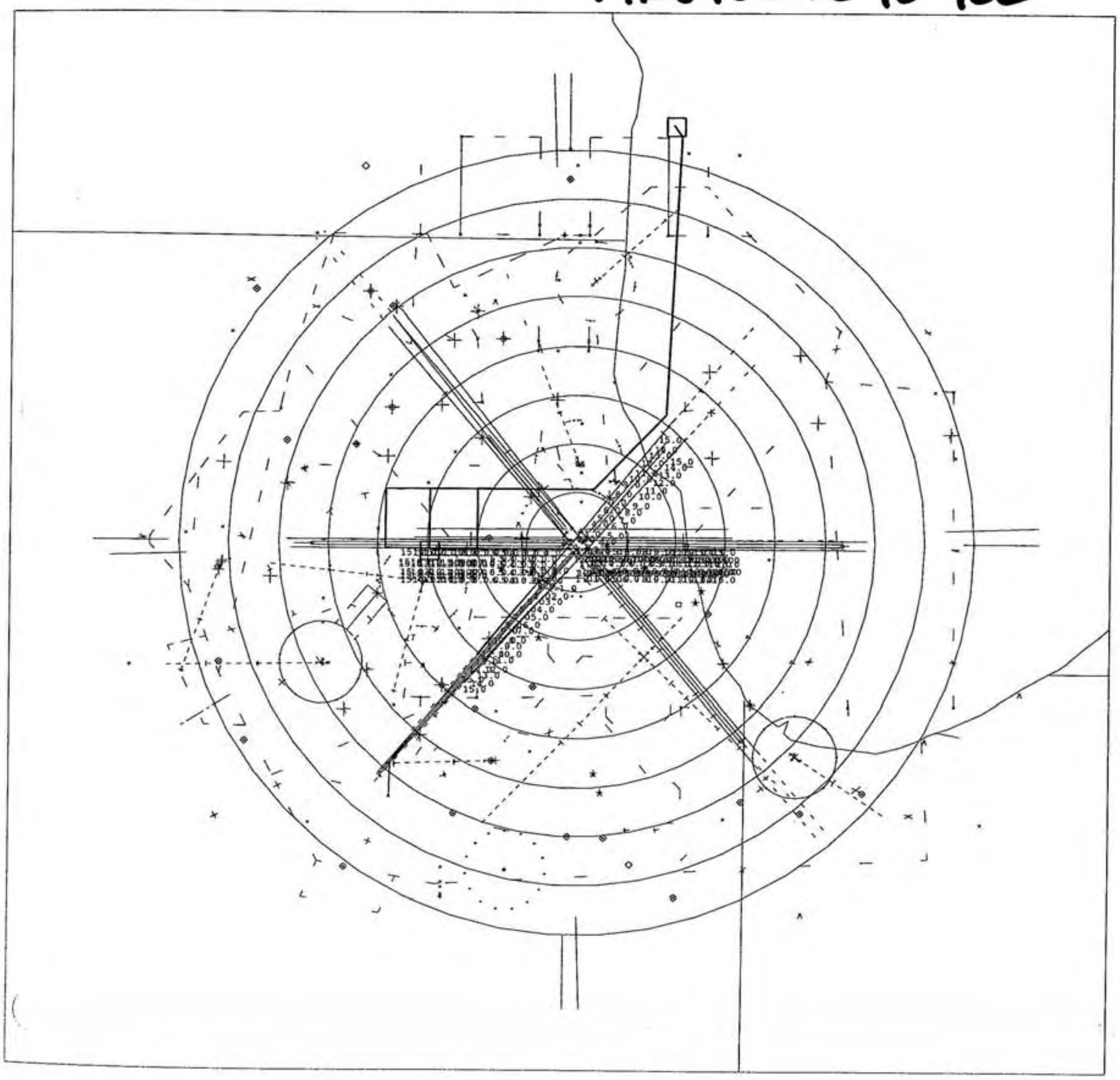
Group:	Jet:	H ☑	M ☑	L ☑	Tprop:	H ☑	M ☑	L ☑	Piston:	A ☑
Display:		H	M	L		H	M	L		A

Point No. **1** Point Name : **MKE150018** Altitude : **8000**	Latitude : **N42 41 17.6** DME : **None**	Longitude : **W087 41 29.8** IAS : **210 - 250**
Point No. **2** Point Name : **ORD570** Altitude : **8000**	Latitude : **N42 40 8.8** DME : **None**	Longitude : **W087 40 23.2** IAS : **210 - 250**
Point No. **3** Point Name : **ORD250** Altitude : **7000**	Latitude : **N42 11 47.8** DME : **None**	Longitude : **W087 42 14.2** IAS : **210 - 250**
Point No. **4** Point Name : **ORD241** Altitude : **7000**	Latitude : **N42 04 8.6** DME : **None**	Longitude : **W087 52 5.9** IAS : **210 - 250**
Point No. **5** Point Name : **ORD569** Altitude : **7000**	Latitude : **N42 04 9.8** DME : **None**	Longitude : **W088 00 23.3** IAS : **190 - 210**
Point No. **6** Point Name : **ORD565** Altitude : **6000**	Latitude : **N42 04 9.0** DME : **None**	Longitude : **W088 14 6.2** IAS : **170 - 190**
Point No. **7** Point Name : **ORD383** Altitude : **4000**	Latitude : **N41 58 1.8** DME : **None**	Longitude : **W088 14 8.0** IAS : **170 - 190**
Point No. **8** Point Name : **ORD581** Altitude : **2200**	Latitude : **N41 58 5.9** DME : **None**	Longitude : **W088 03 3.3** IAS : **170**

MKE150018 to 10L

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

MKE 150018 to 10L



Project: KORD_EIS_EXP33

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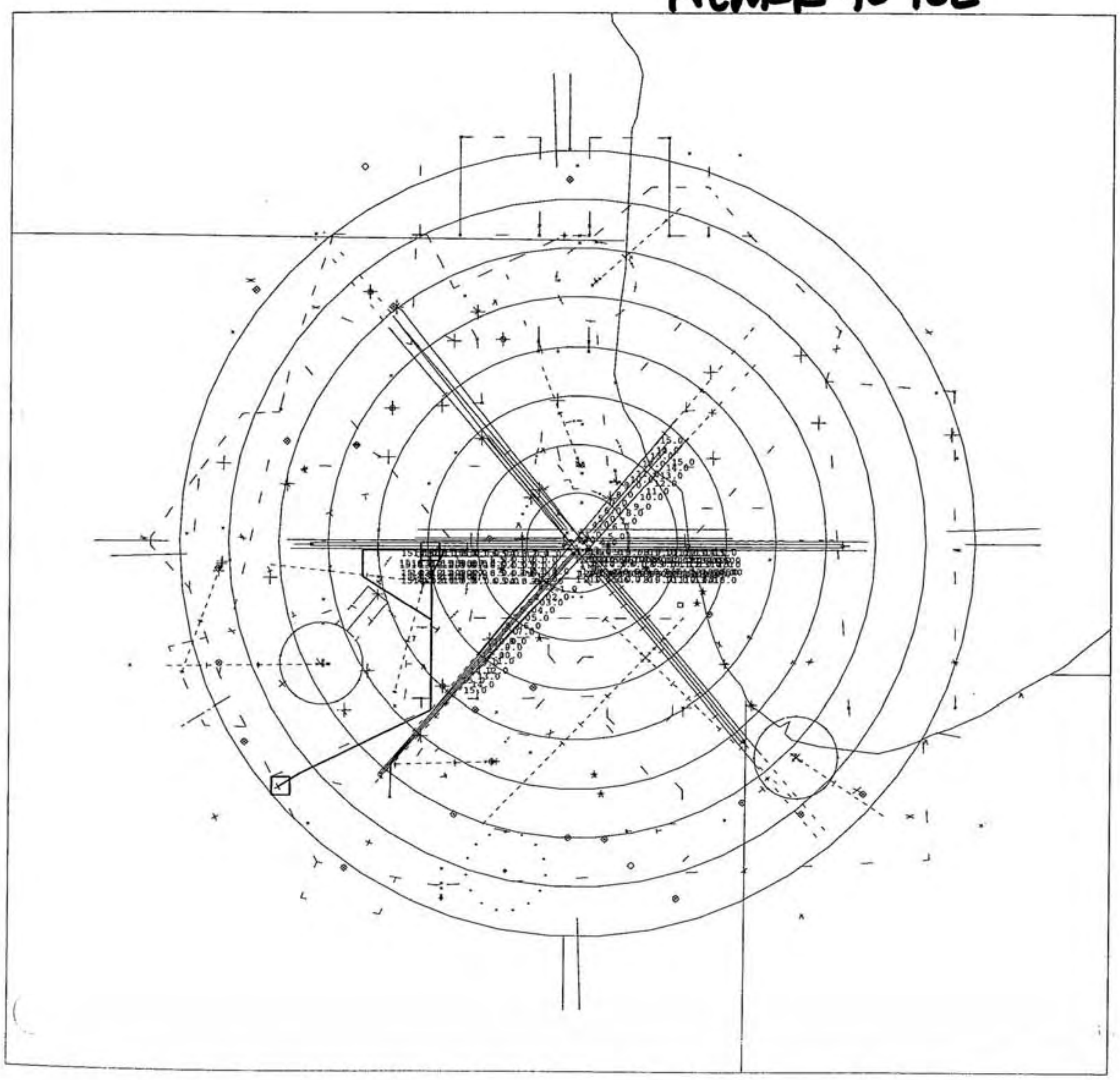
Display:	H	M	L		H	M	L		A

Point No. **1** Point Name : **NEWRK** Altitude : **11000**	Latitude : **N41 33 58.1** DME : **None**	Longitude : **W088 34 16.0** IAS : **210 - 300**
Point No. **2** Point Name : **NEWRK_FIX** Altitude : **11000**	Latitude : **N41 35 14.5** DME : **None**	Longitude : **W088 31 31.0** IAS : **210 - 300**
Point No. **3** Point Name : **ORD584** Altitude : **8000**	Latitude : **N41 41 43.0** DME : **None**	Longitude : **W088 13 53.0** IAS : **210 - 250**
Point No. **4** Point Name : **ORD585** Altitude : **7000**	Latitude : **N41 50 50.9** DME : **None**	Longitude : **W088 13 53.0** IAS : **170 - 210**
Point No. **5** Point Name : **ORD578** Altitude : **6000**	Latitude : **N41 55 30.7** DME : **None**	Longitude : **W088 13 54.6** IAS : **170 - 210**
Point No. **6** Point Name : **ORD383** Altitude : **5000**	Latitude : **N41 58 1.8** DME : **None**	Longitude : **W088 14 8.0** IAS : **170 - 190**
Point No. **7** Point Name : **ORD581** Altitude : **2200**	Latitude : **N41 58 5.9** DME : **None**	Longitude : **W088 03 3.3** IAS : **170**

NEWRK to 1DL

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

NEWRK to 10L



Project: KORD_EIS_EXP33

Printed by taam

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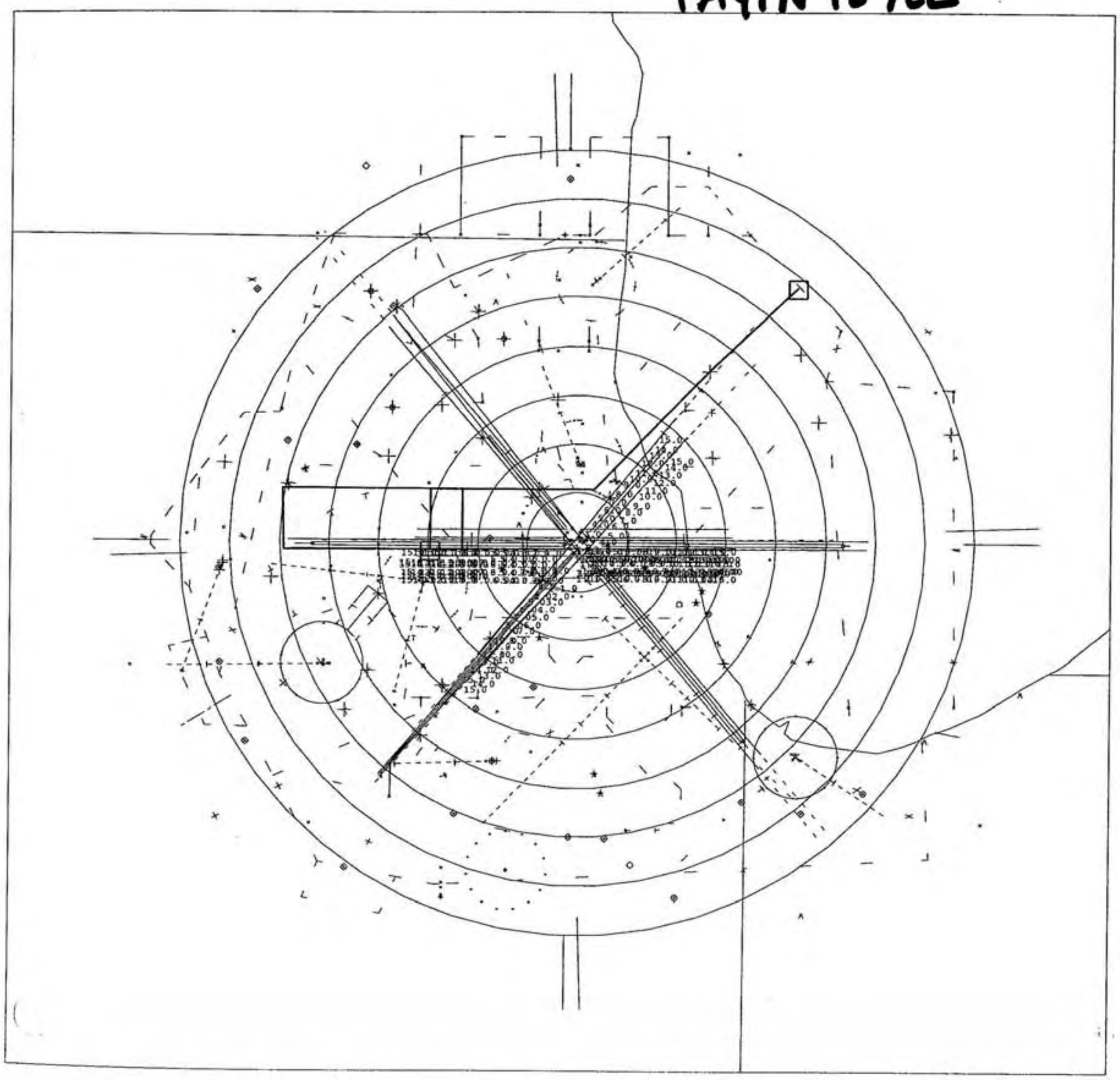
Display:		H	M	L		H	M	L		A

Point No. **1** Point Name : **PAYTN** Altitude : **10000**	Latitude : **N42 24 40.8** DME : **None**	Longitude : **W087 24 35.7** IAS : **210 - 250**
Point No. **2** Point Name : **ORD571** Altitude : **10000**	Latitude : **N42 23 57.6** DME : **None**	Longitude : **W087 25 37.1** IAS : **210 - 250**
Point No. **3** Point Name : **PAPPI** Altitude : **10000**	Latitude : **N42 16 16.7** DME : **None**	Longitude : **W087 36 26.1** IAS : **210 - 250**
Point No. **4** Point Name : **ORD250** Altitude : **9000**	Latitude : **N42 11 47.8** DME : **None**	Longitude : **W087 42 14.2** IAS : **210 - 250**
Point No. **5** Point Name : **ORD241** Altitude : **8000**	Latitude : **N42 04 8.6** DME : **None**	Longitude : **W087 52 5.9** IAS : **190 - 210**
Point No. **6** Point Name : **ORD569** Altitude : **7000**	Latitude : **N42 04 9.8** DME : **None**	Longitude : **W088 00 23.3** IAS : **190 - 210**
Point No. **7** Point Name : **ORD565** Altitude : **6000**	Latitude : **N42 04 9.0** DME : **None**	Longitude : **W088 14 6.2** IAS : **170 - 190**
Point No. **8** Point Name : **ORD383** Altitude : **6000**	Latitude : **N41 58 1.8** DME : **None**	Longitude : **W088 14 8.0** IAS : **170 - 190**
Point No. **9** Point Name : **ORD581** Altitude : **2200**	Latitude : **N41 58 5.9** DME : **None**	Longitude : **W088 03 3.3** IAS : **170**

PAYTN to 10L

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

PAYTN to 10L



Project: KORD_EIS_EXP33

Printed by taam

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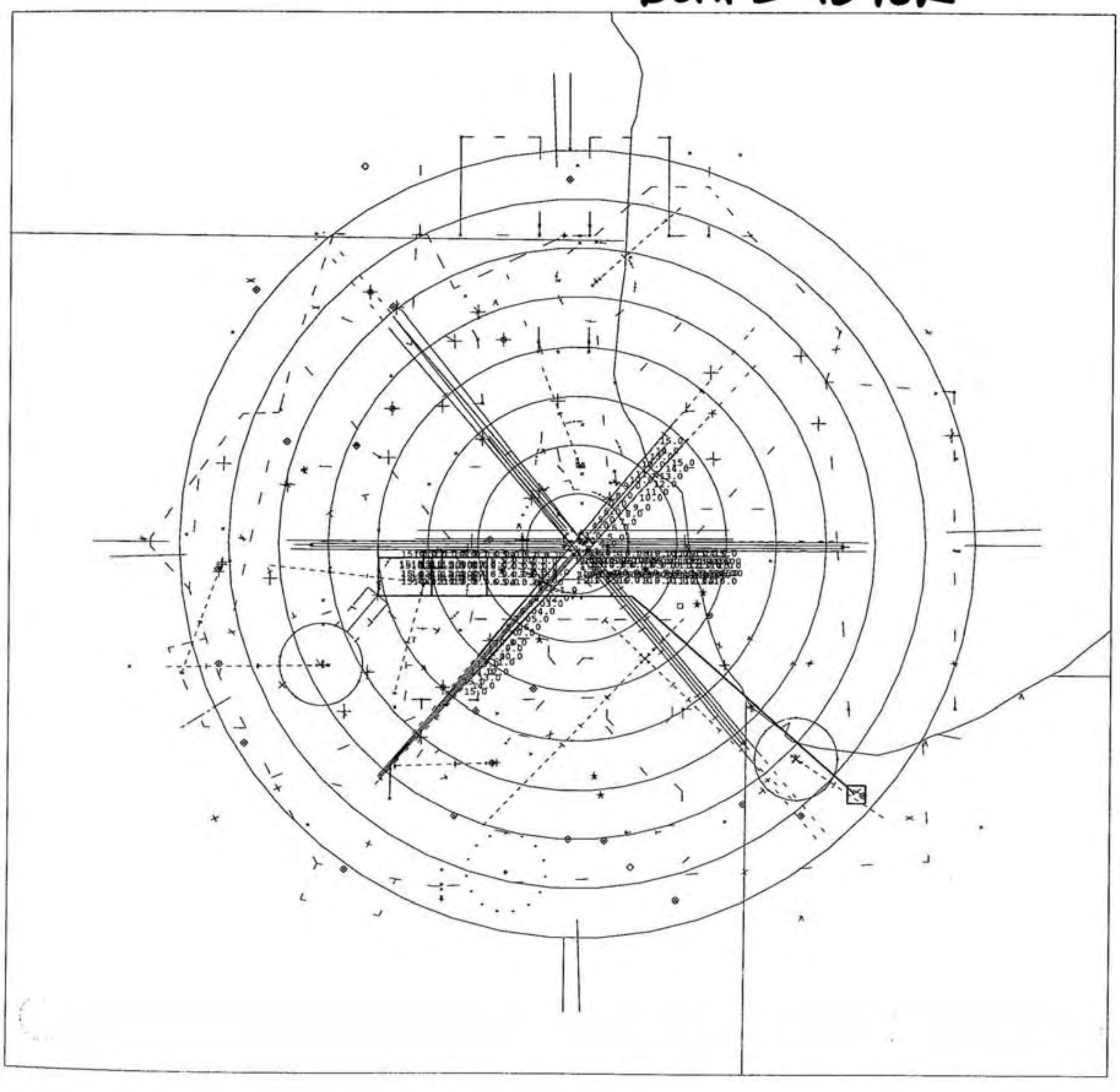
Display:		H	M	L		H	M	L		A

Point No. **1** Point Name : **BEARZ** Altitude : **11000**	Latitude : **N41 33 36.4** DME : **None**	Longitude : **W087 16 32.9** IAS : **210 - 300**
Point No. **2** Point Name : **ORD580** Altitude : **11000**	Latitude : **N41 34 54.5** DME : **None**	Longitude : **W087 18 31.0** IAS : **210 - 300**
Point No. **3** Point Name : **ORD503** Altitude : **8000**	Latitude : **N41 53 28.8** DME : **None**	Longitude : **W087 46 51.1** IAS : **190 - 250**
Point No. **4** Point Name : **ORD529** Altitude : **7000**	Latitude : **N41 53 28.7** DME : **None**	Longitude : **W087 59 53.8** IAS : **190 - 210**
Point No. **5** Point Name : **ORD579** Altitude : **5000**	Latitude : **N41 53 25.9** DME : **None**	Longitude : **W088 13 54.6** IAS : **170 - 210**
Point No. **6** Point Name : **ORD577** Altitude : **4000**	Latitude : **N41 57 20.0** DME : **None**	Longitude : **W088 13 54.6** IAS : **170 - 210**
Point No. **7** Point Name : **ORD576** Altitude : **2200**	Latitude : **N41 57 24.0** DME : **None**	Longitude : **W088 02 25.8** IAS : **170**

BEARZ to 10R

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

BEARZ to 10R



Project: KORD_EIS_EXP33

Printed by taam

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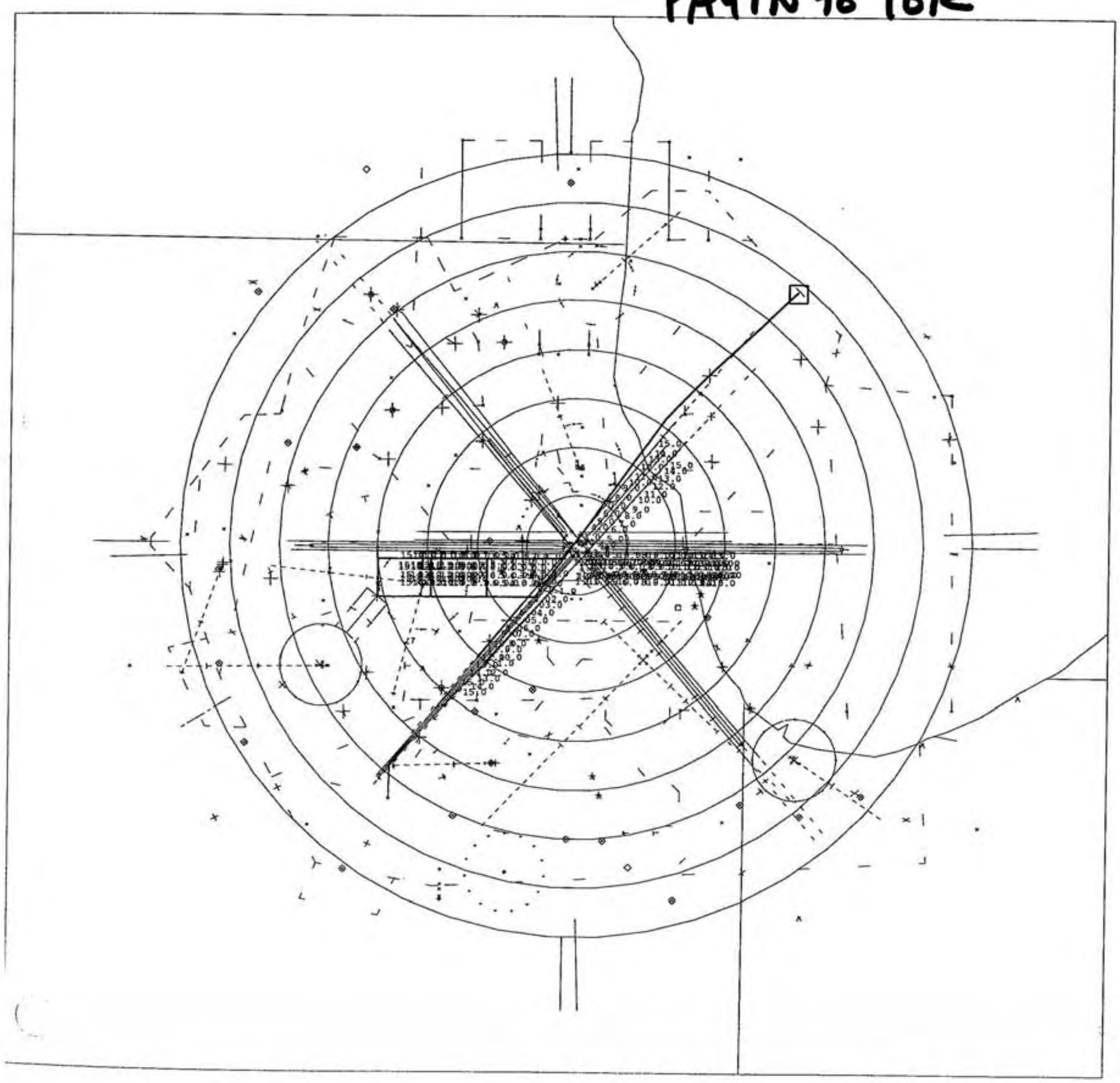
Display:		H	M	L		H	M	L		A

Point No. **1** Point Name : **PAYTN** Altitude : **10000**	Latitude : **N42 24 40.8** DME : **None**	Longitude : **W087 24 35.7** IAS : **210 - 250**
Point No. **2** Point Name : **ORD571** Altitude : **10000**	Latitude : **N42 23 57.6** DME : **None**	Longitude : **W087 25 37.1** IAS : **210 - 250**
Point No. **3** Point Name : **PAPPI** Altitude : **10000**	Latitude : **N42 16 16.7** DME : **None**	Longitude : **W087 36 26.1** IAS : **210 - 250**
Point No. **4** Point Name : **ORD250** Altitude : **10000**	Latitude : **N42 11 47.8** DME : **None**	Longitude : **W087 42 14.2** IAS : **190 - 210**
Point No. **5** Point Name : **ORD529** Altitude : **7000**	Latitude : **N41 53 28.7** DME : **None**	Longitude : **W087 59 53.8** IAS : **190 - 210**
Point No. **6** Point Name : **ORD579** Altitude : **7000**	Latitude : **N41 53 25.9** DME : **None**	Longitude : **W088 13 54.6** IAS : **170 - 190**
Point No. **7** Point Name : **ORD577** Altitude : **4000**	Latitude : **N41 57 20.0** DME : **None**	Longitude : **W088 13 54.6** IAS : **170 - 190**
Point No. **8** Point Name : **ORD576** Altitude : **2200**	Latitude : **N41 57 24.0** DME : **None**	Longitude : **W088 02 25.8** IAS : **170**

PAYTN to 10R

Project: KORD_EIS_EXP33 Continue page 2 Printed by taam

PAYTN to 10R



Project: KORD_EIS_EXP33

Printed by taam

TAAM Summary Statistics for Air Quality Analysis

2018 With Project Peak Month Average Day
Experiment 33 – VFR-1 Parallel 9s (Quads)

The following operational and delay-related statistics are included from TAAM simulation for the air quality analysis:

Table 1:	Operations summary
Table 2:	Runway use summary
Table 3:	Aircraft fleet mix by runway
Table 4:	Travel and Delay Times
Table 5:	Unimpeded taxi times
Table 6:	Fleet mix and modeled gates
Table 7:	Departure runway queues

Definitions:
Arrival Unimpeded Ground Travel Time: Unimpeded ground travel time from the runway exit to the gate.

Departure Unimpeded Ground Travel Time: Unimpeded ground travel time from the gate to the runway.

Arrival Taxi Delay: Delay incurred between the runway exit and the gate.

Departure Taxi Delay: Delay incurred between the time an aircraft is ready to taxi from the gate and the time the aircraft reaches the departure queue.

Arrival Standoff Delay: Time spent at a standoff position waiting for a gate to become available.

Departure Queue Delay: Delay incurred in the departure runway queue while waiting for departure clearance.

Hourly Operations: Arrival and departure operations by each hour.

Flights terminated: Number of events that did not complete the entire landing or takeoff cycle in the simulation.

Departure Gate Delay: Delay incurred at the gate due to ramp congestion at the airport.

Table 1
O'Hare Modernization Program
2018 With Project Operations Summary

Annualized Weighting of Operating Configurations

Experiment #	Operating Configuration	Weather Conditions	Annualized Weighting
33	VFR -1 Parallel 9s	VMC	12.6%
51	VFR -2 Parallel 9s	VMC	10.6%
52	VFR-1 Parallel 27s	VMC	41.4%
53	VFR-2 Parallel 27s	VMC	26.1%
54	IFR Parallell 9s	IMC	4.5%
55	IFR Parallell 27s	IMC	4.8%
	Totals		100.0%

Sources: National Climatic Data Center (January 1, 1991 through December 31, 2000); Ricondo & Associates, Inc.

	Arrivals	Departures	Totals
Peak Month Average Day Operations	1,687	1,687	3,374
Annual Operations			1,194,000
Design Day Ratio			353.9

DRAFT- For Discussion Purposes Only

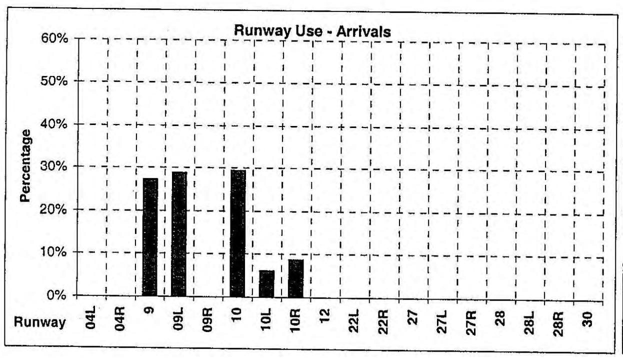
Table 2
2018 With Project Peak Month Average Day
Runway Use
Experiment 33 - VFR-1 Parallel 9s

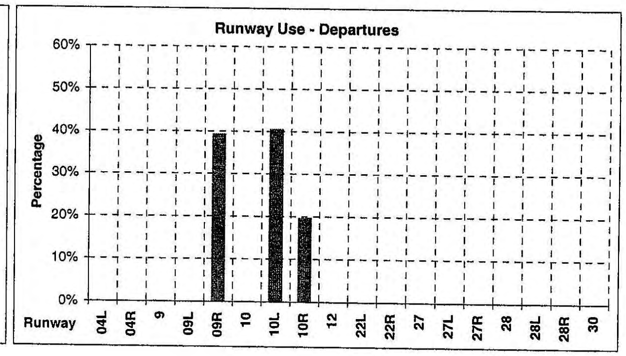
Simulated - Operations by Runway

Runway	Arrivals	Departures	Grand Total
04L	-	-	-
04R	-	-	-
9	459	3	462
09L	485	-	485
09R	-	663	663
10	495	3	498
10L	102	684	786
10R	146	334	480
12	-	-	-
22L	-	-	-
22R	-	-	-
27	-	-	-
27L	-	-	-
27R	-	-	-
28	-	-	-
28L	-	-	-
28R	-	-	-
30	-	-	-
TOTAL	1,687	1,687	3,374

Percentage of Runway Use

Runway	Arrivals	Departures	Grand Total
04L	0.0%	0.0%	0.0%
04R	0.0%	0.0%	0.0%
9	27.2%	0.2%	13.7%
09L	28.7%	0.0%	14.4%
09R	0.0%	39.3%	19.7%
10	29.3%	0.2%	14.8%
10L	6.0%	40.5%	23.3%
10R	8.7%	19.8%	14.2%
12	0.0%	0.0%	0.0%
22L	0.0%	0.0%	0.0%
22R	0.0%	0.0%	0.0%
27	0.0%	0.0%	0.0%
27L	0.0%	0.0%	0.0%
27R	0.0%	0.0%	0.0%
28	0.0%	0.0%	0.0%
28L	0.0%	0.0%	0.0%
28R	0.0%	0.0%	0.0%
30	0.0%	0.0%	0.0%
TOTALS	100.0%	100.0%	100.0%





DRAFT

Table 3
TAAM Project Name: data\projects\taam\KORD_EIS_EXP33.prj

AIRCRAFT FLEET MIX BY RUNWAY

	Arrivals						Departures						Daily
AC Type	**09L**	**10R**	**10**	**9**	**10L**	**Totals**	**09R**	**10R**	**10**	**9**	**10L**	**Totals**	**Totals**
319	75	18	59	57	14	223	112	35	-	-	73	220	443
320	68	25	46	39	14	192	73	56	-	-	65	194	386
332	2	1	-	-	-	3	3	-	-	-	-	3	6
333	1	1	1	-	-	3	3	-	-	-	-	3	6
343	5	4	2	-	-	11	9	-	-	-	2	11	22
737	4	6	20	21	10	61	10	18	-	-	33	61	122
738	79	17	86	117	8	307	110	77	-	-	121	308	615
744	7	-	-	3	-	10	2	-	-	-	9	11	21
74F	2	-	-	2	8	12	1	-	-	-	10	11	23
74M	-	-	1	-	-	1	1	-	-	-	-	1	2
763	13	8	8	-	8	37	23	-	-	-	14	37	74
772	18	1	9	14	6	48	22	11	-	-	14	47	95
BE40	1	-	-	-	-	1	1	-	-	-	-	1	2
BE58	-	-	-	-	1	1	1	-	-	-	-	1	2
C210	-	-	2	-	-	2	-	-	-	-	2	2	4
C550	1	1	-	-	-	2	1	1	-	-	-	2	4
C560	1	-	1	2	-	4	1	1	-	-	2	4	8
C650	-	-	1	5	-	6	-	5	-	-	1	6	12
C750	1	-	2	3	1	7	1	3	-	-	3	7	14
CL60	-	-	-	2	-	2	-	1	-	-	1	2	4
CRJ	41	9	30	28	-	108	58	10	-	-	41	109	217
F900	-	-	-	1	-	1	1	-	-	-	1	2	3
FA50	1	-	-	1	-	2	1	-	-	-	-	1	3
G4	-	-	-	1	-	1	-	1	-	-	-	1	2
G5	4	-	-	-	-	4	1	2	-	-	-	3	7
LJ30	1	-	-	-	-	1	1	-	-	-	1	2	3
LJ45	-	-	-	1	-	1	-	-	-	-	1	1	2

AC Type	Arrivals 09L	Arrivals 10R	Arrivals 10	Arrivals 9	Arrivals 10L	Arrivals Totals	Departures 09R	Departures 10R	Departures 10	Departures 9	Departures 10L	Departures Totals	Daily Totals
LJ55	-	-	-	3	-	3	-	2	-	-	1	3	6
LJ60	-	-	1	3	-	4	-	1	-	-	2	3	7
M1F	-	-	-	1	2	3	-	-	-	-	4	4	7
739	9	2	20	13	6	50	10	16	-	-	25	51	101
773	2	-	-	1	-	3	-	-	-	-	3	3	6
CR7	53	18	76	39	2	188	68	32	-	-	88	188	376
CR9	39	18	49	16	2	124	63	9	-	-	52	124	248
A3F	-	-	1	1	5	7	-	-	-	-	7	7	14
E145	30	5	42	55	1	133	41	29	-	-	62	132	265
LJ35	-	1	-	-	1	2	1	-	-	-	1	2	4
F2TH	-	-	-	1	1	2	1	1	-	-	-	2	4
C56X	1	1	-	-	-	2	1	-	-	-	1	2	4
H25C	1	-	1	2	-	4	1	1	-	-	2	4	8
31F	-	-	-	-	2	2	-	-	-	-	2	2	4
FA20	1	-	-	-	-	1	1	-	-	-	-	1	2
342	1	-	-	-	-	1	-	-	-	-	1	1	2
76F	-	-	-	-	4	4	-	-	-	-	4	4	8
380	-	-	2	3	-	5	-	-	2	3	-	5	10
346	-	2	-	2	-	4	2	-	-	-	2	4	8
38F	-	-	1	-	-	1	-	-	1	-	-	1	2
321	23	6	22	22	3	76	38	20	-	-	18	76	152
75F	-	-	-	-	2	2	-	-	-	-	2	2	4
717	-	2	12	-	1	15	-	2	-	-	13	15	30
Total	485	146	495	459	102	1687	663	334	3	3	684	1687	3,374

Table 4
TAAM Project Name: data\porjects\taam\KORD_EIS_EXP33.prj

RANDOM SEED: 563476

KORD departures terminated:	0
KORD arrivals terminated:	0

TAAM Project Name: data\porjects\taam\KORD_EIS_EXP33.prj

KORD ARRIVALS - Travel and Delay Times

Runway - ALL

			AVERAGE ARRIVAL TIMES (hh:mm:ss)			
			UNIMPEDED	DELAY		
Day	Hour	Arrivals	TRAVEL GROUND	TAXI	STANDOFF	TOTAL
17	0	4	0:05:17	0:00:00	0:00:00	0:00:00
17	1	0	0:00:00	0:00:00	0:00:00	0:00:00
17	2	3	0:09:23	0:00:00	0:00:00	0:00:00
17	3	2	0:07:39	0:00:00	0:00:00	0:00:00
17	4	9	0:09:16	0:00:00	0:00:00	0:00:00
17	5	27	0:08:00	0:00:00	0:00:00	0:00:00
17	6	25	0:08:48	0:00:00	0:00:00	0:00:00
17	7	97	0:13:21	0:00:10	0:00:00	0:00:10
17	8	85	0:12:25	0:00:16	0:00:00	0:00:16
17	9	110	0:14:06	0:00:11	0:00:00	0:00:11
17	10	88	0:13:27	0:00:12	0:00:00	0:00:12
17	11	113	0:14:30	0:00:27	0:00:00	0:00:27
17	12	107	0:13:47	0:00:13	0:00:00	0:00:13
17	13	103	0:14:13	0:00:26	0:00:00	0:00:26
17	14	125	0:14:14	0:00:31	0:00:00	0:00:31
17	15	114	0:13:55	0:00:19	0:00:00	0:00:19
17	16	105	0:13:53	0:00:18	0:00:00	0:00:18
17	17	120	0:14:21	0:00:30	0:00:00	0:00:30
17	18	120	0:14:23	0:00:19	0:00:00	0:00:19
17	19	133	0:13:47	0:00:57	0:00:00	0:00:57
17	20	120	0:14:10	0:00:14	0:00:00	0:00:14
17	21	37	0:14:17	0:00:04	0:00:00	0:00:04
17	22	21	0:07:40	0:00:13	0:00:00	0:00:13
17	23	17	0:06:45	0:00:00	0:00:00	0:00:00
18	0	2	0:09:05	0:00:00	0:00:00	0:00:00
TOTALS		1687	0:13:34	0:00:21	0:00:00	0:00:21

TAAM Project Name: data\porjects\taam\KORD_EIS_EXP33.prj

KORD ARRIVALS - Travel and Delay Times

Runway - 10R

			---------------- AVERAGE ARRIVAL TIMES (hh:mm:ss) ----------------			
			UNIMPEDED	-------------------- DELAY --------------------		
Day	Hour	Arrivals	TRAVEL GROUND	TAXI	STANDOFF	TOTAL
17	0	0	0:00:00	0:00:00	0:00:00	0:00:00
17	1	0	0:00:00	0:00:00	0:00:00	0:00:00
17	2	0	0:00:00	0:00:00	0:00:00	0:00:00
17	3	0	0:00:00	0:00:00	0:00:00	0:00:00
17	4	0	0:00:00	0:00:00	0:00:00	0:00:00
17	5	0	0:00:00	0:00:00	0:00:00	0:00:00
17	6	0	0:00:00	0:00:00	0:00:00	0:00:00
17	7	3	0:16:36	0:00:05	0:00:00	0:00:05
17	8	0	0:00:00	0:00:00	0:00:00	0:00:00
17	9	20	0:17:45	0:00:10	0:00:00	0:00:10
17	10	1	0:16:06	0:00:17	0:00:00	0:00:17
17	11	15	0:14:36	0:00:31	0:00:00	0:00:31
17	12	1	0:17:54	0:00:06	0:00:00	0:00:06
17	13	15	0:16:49	0:00:34	0:00:00	0:00:34
17	14	23	0:15:05	0:01:13	0:00:00	0:01:13
17	15	5	0:16:22	0:00:03	0:00:00	0:00:03
17	16	11	0:14:40	0:00:29	0:00:00	0:00:29
17	17	12	0:16:24	0:00:30	0:00:00	0:00:30
17	18	16	0:15:51	0:00:23	0:00:00	0:00:23
17	19	17	0:17:05	0:04:19	0:00:00	0:04:19
17	20	7	0:15:14	0:00:09	0:00:00	0:00:09
17	21	0	0:00:00	0:00:00	0:00:00	0:00:00
17	22	0	0:00:00	0:00:00	0:00:00	0:00:00
17	23	0	0:00:00	0:00:00	0:00:00	0:00:00
18	0	0	0:00:00	0:00:00	0:00:00	0:00:00
TOTALS		146	0:16:05	0:00:57	0:00:00	0:00:57

TAAM Project Name: data\porjects\taam\KORD_EIS_EXP33.prj

KORD ARRIVALS - Travel and Delay Times

Runway - 10

			AVERAGE ARRIVAL TIMES (hh:mm:ss)			
			UNIMPEDED	DELAY		
Day	Hour	Arrivals	TRAVEL GROUND	TAXI	STANDOFF	TOTAL
17	0	0	0:00:00	0:00:00	0:00:00	0:00:00
17	1	0	0:00:00	0:00:00	0:00:00	0:00:00
17	2	1	0:07:07	0:00:00	0:00:00	0:00:00
17	3	0	0:00:00	0:00:00	0:00:00	0:00:00
17	4	0	0:00:00	0:00:00	0:00:00	0:00:00
17	5	0	0:00:00	0:00:00	0:00:00	0:00:00
17	6	2	0:10:37	0:00:00	0:00:00	0:00:00
17	7	34	0:09:28	0:00:06	0:00:00	0:00:06
17	8	28	0:10:26	0:00:18	0:00:00	0:00:18
17	9	38	0:10:00	0:00:09	0:00:00	0:00:09
17	10	29	0:10:14	0:00:10	0:00:00	0:00:10
17	11	28	0:11:10	0:00:29	0:00:00	0:00:29
17	12	29	0:09:47	0:00:08	0:00:00	0:00:08
17	13	37	0:10:53	0:00:26	0:00:00	0:00:26
17	14	35	0:10:14	0:00:17	0:00:00	0:00:17
17	15	37	0:10:16	0:00:19	0:00:00	0:00:19
17	16	31	0:10:31	0:00:12	0:00:00	0:00:12
17	17	34	0:10:33	0:00:16	0:00:00	0:00:16
17	18	30	0:09:37	0:00:10	0:00:00	0:00:10
17	19	44	0:09:59	0:00:10	0:00:00	0:00:10
17	20	41	0:10:18	0:00:09	0:00:00	0:00:09
17	21	16	0:11:34	0:00:07	0:00:00	0:00:07
17	22	1	0:09:16	0:00:00	0:00:00	0:00:00
17	23	0	0:00:00	0:00:00	0:00:00	0:00:00
18	0	0	0:00:00	0:00:00	0:00:00	0:00:00
TOTALS		495	0:10:17	0:00:14	0:00:00	0:00:14

TAAM Project Name: data\porjects\taam\KORD_EIS_EXP33.prj

KORD ARRIVALS - Travel and Delay Times

Runway - 09

			AVERAGE ARRIVAL TIMES (hh:mm:ss)			
			UNIMPEDED	DELAY		
Day	Hour	Arrivals	TRAVEL GROUND	TAXI	STANDOFF	TOTAL
17	0	0	0:00:00	0:00:00	0:00:00	0:00:00
17	1	0	0:00:00	0:00:00	0:00:00	0:00:00
17	2	0	0:00:00	0:00:00	0:00:00	0:00:00
17	3	0	0:00:00	0:00:00	0:00:00	0:00:00
17	4	0	0:00:00	0:00:00	0:00:00	0:00:00
17	5	0	0:00:00	0:00:00	0:00:00	0:00:00
17	6	1	0:18:31	0:00:00	0:00:00	0:00:00
17	7	22	0:11:06	0:00:13	0:00:00	0:00:13
17	8	34	0:11:06	0:00:12	0:00:00	0:00:12
17	9	21	0:11:46	0:00:11	0:00:00	0:00:11
17	10	25	0:11:31	0:00:14	0:00:00	0:00:14
17	11	34	0:12:45	0:00:18	0:00:00	0:00:18
17	12	40	0:12:49	0:00:12	0:00:00	0:00:12
17	13	22	0:11:11	0:00:13	0:00:00	0:00:13
17	14	35	0:13:01	0:00:20	0:00:00	0:00:20
17	15	32	0:12:04	0:00:21	0:00:00	0:00:21
17	16	35	0:12:42	0:00:14	0:00:00	0:00:14
17	17	38	0:12:55	0:00:32	0:00:00	0:00:32
17	18	36	0:12:55	0:00:14	0:00:00	0:00:14
17	19	38	0:12:22	0:00:33	0:00:00	0:00:33
17	20	37	0:13:21	0:00:11	0:00:00	0:00:11
17	21	8	0:13:19	0:00:05	0:00:00	0:00:05
17	22	1	0:10:41	0:00:00	0:00:00	0:00:00
17	23	0	0:00:00	0:00:00	0:00:00	0:00:00
18	0	0	0:00:00	0:00:00	0:00:00	0:00:00
TOTALS		459	0:12:24	0:00:18	0:00:00	0:00:18

TAAM Project Name: data\porjects\taam\KORD_EIS_EXP33.prj

KORD ARRIVALS - Travel and Delay Times

Runway - 09L

			---------------- AVERAGE ARRIVAL TIMES (hh:mm:ss) ----------------			
			UNIMPEDED	-------- DELAY --------		
Day	Hour	Arrivals	TRAVEL GROUND	TAXI	STANDOFF	TOTAL
17	0	0	0:00:00	0:00:00	0:00:00	0:00:00
17	1	0	0:00:00	0:00:00	0:00:00	0:00:00
17	2	0	0:00:00	0:00:00	0:00:00	0:00:00
17	3	0	0:00:00	0:00:00	0:00:00	0:00:00
17	4	0	0:00:00	0:00:00	0:00:00	0:00:00
17	5	0	0:00:00	0:00:00	0:00:00	0:00:00
17	6	2	0:19:00	0:00:00	0:00:00	0:00:00
17	7	38	0:17:53	0:00:12	0:00:00	0:00:12
17	8	23	0:16:47	0:00:17	0:00:00	0:00:17
17	9	31	0:18:22	0:00:14	0:00:00	0:00:14
17	10	33	0:17:40	0:00:13	0:00:00	0:00:13
17	11	36	0:18:41	0:00:31	0:00:00	0:00:31
17	12	37	0:17:53	0:00:19	0:00:00	0:00:19
17	13	29	0:19:25	0:00:30	0:00:00	0:00:30
17	14	32	0:19:20	0:00:31	0:00:00	0:00:31
17	15	40	0:18:29	0:00:19	0:00:00	0:00:19
17	16	28	0:18:46	0:00:26	0:00:00	0:00:26
17	17	36	0:18:47	0:00:42	0:00:00	0:00:42
17	18	38	0:18:54	0:00:28	0:00:00	0:00:28
17	19	34	0:18:38	0:00:41	0:00:00	0:00:41
17	20	35	0:19:20	0:00:24	0:00:00	0:00:24
17	21	13	0:18:13	0:00:01	0:00:00	0:00:01
17	22	0	0:00:00	0:00:00	0:00:00	0:00:00
17	23	0	0:00:00	0:00:00	0:00:00	0:00:00
18	0	0	0:00:00	0:00:00	0:00:00	0:00:00
TOTALS		485	0:18:31	0:00:24	0:00:00	0:00:24

TAAM Project Name: data\porjects\taam\KORD_EIS_EXP33.prj

KORD ARRIVALS - Travel and Delay Times

Runway - 10L

			---------------- AVERAGE ARRIVAL TIMES (hh:mm:ss) ----------------			
			UNIMPEDED	--------------------- DELAY ---------------------		
Day	Hour	Arrivals	TRAVEL GROUND	TAXI	STANDOFF	TOTAL
17	0	4	0:05:17	0:00:00	0:00:00	0:00:00
17	1	0	0:00:00	0:00:00	0:00:00	0:00:00
17	2	2	0:10:32	0:00:00	0:00:00	0:00:00
17	3	2	0:07:39	0:00:00	0:00:00	0:00:00
17	4	9	0:09:16	0:00:00	0:00:00	0:00:00
17	5	27	0:08:00	0:00:00	0:00:00	0:00:00
17	6	20	0:07:07	0:00:01	0:00:00	0:00:01
17	7	0	0:00:00	0:00:00	0:00:00	0:00:00
17	8	0	0:00:00	0:00:00	0:00:00	0:00:00
17	9	0	0:00:00	0:00:00	0:00:00	0:00:00
17	10	0	0:00:00	0:00:00	0:00:00	0:00:00
17	11	0	0:00:00	0:00:00	0:00:00	0:00:00
17	12	0	0:00:00	0:00:00	0:00:00	0:00:00
17	13	0	0:00:00	0:00:00	0:00:00	0:00:00
17	14	0	0:00:00	0:00:00	0:00:00	0:00:00
17	15	0	0:00:00	0:00:00	0:00:00	0:00:00
17	16	0	0:00:00	0:00:00	0:00:00	0:00:00
17	17	0	0:00:00	0:00:00	0:00:00	0:00:00
17	18	0	0:00:00	0:00:00	0:00:00	0:00:00
17	19	0	0:00:00	0:00:00	0:00:00	0:00:00
17	20	0	0:00:00	0:00:00	0:00:00	0:00:00
17	21	0	0:00:00	0:00:00	0:00:00	0:00:00
17	22	19	0:07:26	0:00:15	0:00:00	0:00:15
17	23	17	0:06:45	0:00:00	0:00:00	0:00:00
18	0	2	0:09:05	0:00:00	0:00:00	0:00:00
TOTALS		102	0:07:35	0:00:03	0:00:00	0:00:03

TAAM Project Name: data\porjects\taam\KORD_EIS_EXP33.prj

KORD DEPARTURES - Travel and Delay Times

Runway - ALL

			AVERAGE DEPARTURE TIMES (hh:mm:ss)				
			UNIMPEDED	DELAY			
Day	Hour	Departures	TRAVEL GROUND	GATE	TAXI	DEP. QUEUE	TOTAL
17	0	1	0:05:55	0:00:00	0:00:00	0:00:00	0:00:00
17	1	4	0:08:27	0:00:00	0:00:00	0:00:00	0:00:00
17	2	3	0:09:52	0:00:57	0:00:00	0:00:00	0:00:57
17	3	2	0:10:24	0:00:00	0:00:00	0:00:00	0:00:00
17	4	2	0:08:10	0:00:06	0:00:08	0:00:00	0:00:14
17	5	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	6	38	0:09:18	0:00:09	0:04:50	0:00:56	0:05:55
17	7	78	0:09:43	0:00:30	0:00:45	0:00:23	0:01:38
17	8	119	0:09:37	0:00:16	0:02:18	0:00:34	0:03:08
17	9	106	0:09:56	0:00:20	0:04:13	0:00:50	0:05:23
17	10	99	0:10:08	0:01:14	0:00:35	0:00:27	0:02:16
17	11	107	0:09:50	0:01:05	0:04:25	0:00:59	0:06:29
17	12	109	0:10:12	0:00:21	0:04:31	0:00:57	0:05:49
17	13	108	0:10:57	0:00:44	0:02:24	0:00:48	0:03:56
17	14	98	0:09:46	0:00:45	0:02:22	0:00:47	0:03:54
17	15	121	0:09:52	0:00:30	0:03:38	0:00:52	0:05:00
17	16	110	0:10:26	0:00:37	0:02:01	0:00:47	0:03:25
17	17	110	0:10:47	0:00:21	0:03:01	0:00:56	0:04:18
17	18	128	0:10:42	0:01:25	0:05:01	0:00:52	0:07:18
17	19	117	0:10:41	0:00:34	0:02:08	0:00:48	0:03:30
17	20	110	0:09:33	0:00:30	0:04:00	0:01:00	0:05:30
17	21	85	0:10:22	0:00:23	0:00:52	0:00:30	0:01:45
17	22	17	0:11:08	0:00:13	0:02:45	0:02:12	0:05:10
17	23	15	0:10:01	0:00:23	0:07:24	0:01:56	0:09:43
TOTALS		1687	0:10:10	0:00:37	0:02:59	0:00:48	0:04:24

TAAM Project Name: data\porjects\taam\KORD_EIS_EXP33.prj

KORD DEPARTURES - Travel and Delay Times

Runway - 09R

			AVERAGE DEPARTURE TIMES (hh:mm:ss)				
			UNIMPEDED	DELAY			
Day	Hour	Departures	TRAVEL GROUND	GATE	TAXI	DEP. QUEUE	TOTAL
17	0	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	1	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	2	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	3	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	4	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	5	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	6	11	0:09:26	0:00:01	0:00:00	0:00:00	0:00:01
17	7	29	0:08:45	0:00:43	0:00:14	0:00:15	0:01:12
17	8	47	0:08:58	0:00:19	0:04:02	0:00:41	0:05:02
17	9	46	0:08:43	0:00:14	0:03:28	0:00:40	0:04:22
17	10	43	0:09:16	0:01:23	0:00:36	0:00:26	0:02:25
17	11	42	0:08:22	0:01:36	0:03:46	0:00:44	0:06:06
17	12	42	0:09:38	0:00:03	0:07:36	0:01:03	0:08:42
17	13	38	0:08:51	0:00:45	0:02:11	0:00:44	0:03:40
17	14	39	0:08:50	0:00:26	0:02:42	0:00:32	0:03:40
17	15	50	0:08:50	0:00:33	0:01:10	0:00:36	0:02:19
17	16	43	0:08:40	0:00:23	0:02:25	0:00:45	0:03:33
17	17	40	0:10:13	0:00:23	0:02:20	0:00:41	0:03:24
17	18	56	0:09:35	0:00:39	0:04:36	0:00:48	0:06:03
17	19	52	0:09:24	0:00:43	0:02:49	0:00:37	0:04:09
17	20	48	0:08:55	0:00:11	0:05:16	0:00:50	0:06:17
17	21	37	0:09:59	0:00:25	0:00:34	0:00:28	0:01:27
17	22	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	23	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
TOTALS		663	0:09:08	0:00:34	0:02:59	0:00:40	0:04:13

TAAM Project Name: data\porjects\taam\KORD_EIS_EXP33.prj

KORD DEPARTURES - Travel and Delay Times

Runway - 10R

			AVERAGE DEPARTURE TIMES (hh:mm:ss)				
			UNIMPEDED	DELAY			
Day	Hour	Departures	TRAVEL GROUND	GATE	TAXI	DEP. QUEUE	TOTAL
17	0	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	1	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	2	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	3	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	4	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	5	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	6	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	7	9	0:13:08	0:00:00	0:00:46	0:00:08	0:00:54
17	8	20	0:12:34	0:00:16	0:00:53	0:00:15	0:01:24
17	9	26	0:13:08	0:00:35	0:08:28	0:01:20	0:10:23
17	10	22	0:12:13	0:02:40	0:01:09	0:00:39	0:04:28
17	11	18	0:13:39	0:02:06	0:05:53	0:01:31	0:09:30
17	12	26	0:12:18	0:00:31	0:02:21	0:00:44	0:03:36
17	13	33	0:14:10	0:00:45	0:02:49	0:00:44	0:04:18
17	14	19	0:13:26	0:01:58	0:01:48	0:01:14	0:05:00
17	15	32	0:12:31	0:00:34	0:10:57	0:01:30	0:13:01
17	16	25	0:14:00	0:01:02	0:02:45	0:00:50	0:04:37
17	17	26	0:12:53	0:00:17	0:05:13	0:01:19	0:06:49
17	18	23	0:14:23	0:04:11	0:01:25	0:01:01	0:06:37
17	19	22	0:14:49	0:00:25	0:02:29	0:01:14	0:04:08
17	20	20	0:13:01	0:01:38	0:01:49	0:00:45	0:04:12
17	21	12	0:13:10	0:00:16	0:00:15	0:00:11	0:00:42
17	22	1	0:22:02	0:00:00	0:00:00	0:00:00	0:00:00
17	23	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
TOTALS		334	0:13:19	0:01:09	0:03:44	0:00:57	0:05:50

TAAM Project Name: data\porjects\taam\KORD_EIS_EXP33.prj

KORD DEPARTURES - Travel and Delay Times

Runway - 10L

			AVERAGE DEPARTURE TIMES (hh:mm:ss)				
			UNIMPEDED	DELAY			
Day	Hour	Departures	TRAVEL GROUND	GATE	TAXI	DEP. QUEUE	TOTAL
17	0	1	0:05:55	0:00:00	0:00:00	0:00:00	0:00:00
17	1	4	0:08:27	0:00:00	0:00:00	0:00:00	0:00:00
17	2	3	0:09:52	0:00:57	0:00:00	0:00:00	0:00:57
17	3	1	0:13:04	0:00:00	0:00:00	0:00:00	0:00:00
17	4	2	0:08:10	0:00:06	0:00:08	0:00:00	0:00:14
17	5	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	6	27	0:09:14	0:00:12	0:06:49	0:01:19	0:08:20
17	7	40	0:09:40	0:00:27	0:01:07	0:00:33	0:02:07
17	8	52	0:09:05	0:00:12	0:01:16	0:00:35	0:02:03
17	9	34	0:09:10	0:00:17	0:02:00	0:00:41	0:02:58
17	10	34	0:09:54	0:00:08	0:00:12	0:00:21	0:00:41
17	11	47	0:09:42	0:00:15	0:04:26	0:00:59	0:05:40
17	12	41	0:09:27	0:00:34	0:02:43	0:00:58	0:04:15
17	13	37	0:10:14	0:00:42	0:02:15	0:00:54	0:03:51
17	14	40	0:08:57	0:00:28	0:02:20	0:00:49	0:03:37
17	15	39	0:09:02	0:00:22	0:00:47	0:00:42	0:01:51
17	16	41	0:10:14	0:00:36	0:01:13	0:00:47	0:02:36
17	17	43	0:09:57	0:00:15	0:02:06	0:00:55	0:03:16
17	18	48	0:10:11	0:00:54	0:07:16	0:00:51	0:09:01
17	19	43	0:10:07	0:00:27	0:01:09	0:00:47	0:02:23
17	20	41	0:08:35	0:00:21	0:03:42	0:00:56	0:04:59
17	21	36	0:09:49	0:00:22	0:01:22	0:00:39	0:02:23
17	22	15	0:10:26	0:00:15	0:03:07	0:02:30	0:05:52
17	23	15	0:10:01	0:00:23	0:07:24	0:01:56	0:09:43
TOTALS		684	0:09:36	0:00:25	0:02:37	0:00:50	0:03:52

TAAM Project Name: data\porjects\taam\KORD_EIS_EXP33.prj

KORD DEPARTURES - Travel and Delay Times

Runway - 10

			AVERAGE DEPARTURE TIMES (hh:mm:ss)				
			UNIMPEDED	DELAY			
Day	Hour	Departures	TRAVEL GROUND	GATE	TAXI	DEP. QUEUE	TOTAL
17	0	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	1	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	2	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	3	1	0:07:45	0:00:00	0:00:00	0:00:00	0:00:00
17	4	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	5	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	6	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	7	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	8	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	9	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	10	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	11	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	12	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	13	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	14	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	15	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	16	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	17	1	0:14:55	0:05:26	0:11:38	0:01:19	0:18:23
17	18	1	0:14:04	0:05:26	0:02:46	0:00:28	0:08:40
17	19	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	20	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	21	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	22	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	23	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
TOTALS		3	0:12:14	0:03:37	0:04:48	0:00:35	0:09:00

TAAM Project Name: data\porjects\taam\KORD_EIS_EXP33.prj

KORD DEPARTURES - Travel and Delay Times

Runway - 09

			AVERAGE DEPARTURE TIMES (hh:mm:ss)				
			UNIMPEDED	DELAY			
Day	Hour	Departures	TRAVEL GROUND	GATE	TAXI	DEP. QUEUE	TOTAL
17	0	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	1	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	2	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	3	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	4	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	5	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	6	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	7	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	8	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	9	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	10	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	11	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	12	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	13	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	14	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	15	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	16	1	0:06:23	0:00:00	0:00:00	0:01:36	0:01:36
17	17	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	18	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	19	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	20	1	0:11:04	0:00:00	0:00:07	0:17:09	0:17:16
17	21	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
17	22	1	0:10:43	0:00:00	0:00:00	0:00:00	0:00:00
17	23	0	0:00:00	0:00:00	0:00:00	0:00:00	0:00:00
TOTALS		3	0:09:23	0:00:00	0:00:02	0:06:15	0:06:17

Table 5
TAAM Project Name: data/projects.taam/KORD_EIS_EXP33.prj

ORD Arrivals
Unimpeded Taxi-In Times - Arrival Runway to Gate

Unimpeded Taxi-In Times (HH:MM:SS)

		9			09L			10			10L			10R			ALL RUNWAYS		
TERMINAL	GATE	#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL
Terminal 1	B1	1	0:18:56	0:18:56	2	0:24:18	0:48:36	4	0:15:04	1:00:18	0	0:00:00	0:00:00	1	0:20:41	0:20:41	8	0:18:33	2:28:31
Terminal 1	B10	1	0:14:09	0:14:09	2	0:21:26	0:42:52	4	0:11:56	0:47:45	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:14:58	1:44:46
Terminal 1	B11	3	0:14:48	0:44:25	2	0:21:15	0:42:30	1	0:11:44	0:11:44	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:16:26	1:38:39
Terminal 1	B12	3	0:15:18	0:45:55	3	0:21:05	1:03:17	1	0:11:14	0:11:14	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:17:12	2:00:26
Terminal 1	B14	1	0:13:34	0:13:34	3	0:20:46	1:02:18	1	0:11:24	0:11:24	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:17:27	1:27:16
Terminal 1	B16	1	0:15:28	0:15:28	0	0:00:00	0:00:00	1	0:11:01	0:11:01	1	0:08:05	0:08:05	0	0:00:00	0:00:00	3	0:11:31	0:34:34
Terminal 1	B17	0	0:00:00	0:00:00	2	0:19:44	0:39:29	0	0:00:00	0:00:00	1	0:07:25	0:07:25	0	0:00:00	0:00:00	3	0:15:38	0:46:54
Terminal 1	B18	1	0:19:03	0:19:03	3	0:24:12	1:12:36	1	0:14:43	0:14:43	0	0:00:00	0:00:00	2	0:20:53	0:41:46	7	0:21:09	2:28:08
Terminal 1	B19	2	0:16:48	0:33:37	1	0:24:14	0:24:14	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:20:56	0:41:53	5	0:19:56	1:39:44
Terminal 1	B2	0	0:00:00	0:00:00	2	0:23:36	0:47:13	0	0:00:00	0:00:00	1	0:11:09	0:11:09	2	0:20:18	0:40:36	5	0:19:47	1:38:58
Terminal 1	B20	3	0:18:00	0:54:00	2	0:23:48	0:47:36	2	0:14:18	0:28:35	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:18:35	2:10:11
Terminal 1	B21	3	0:17:54	0:53:42	3	0:23:40	1:11:02	1	0:14:11	0:14:11	0	0:00:00	0:00:00	2	0:20:21	0:40:42	9	0:19:57	2:59:37
Terminal 1	B22	0	0:00:00	0:00:00	4	0:23:53	1:35:32	1	0:14:22	0:14:22	0	0:00:00	0:00:00	1	0:20:36	0:20:36	6	0:21:45	2:10:30
Terminal 1	B3	0	0:00:00	0:00:00	3	0:23:00	1:09:02	1	0:13:29	0:13:29	0	0:00:00	0:00:00	2	0:19:30	0:39:00	6	0:20:15	2:01:31
Terminal 1	B4	1	0:15:22	0:15:22	3	0:22:40	1:08:01	4	0:13:21	0:53:26	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:17:06	2:16:49
Terminal 1	B5	4	0:16:17	1:05:09	3	0:22:15	1:06:45	1	0:12:58	0:12:58	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:18:06	2:24:52
Terminal 1	B6	2	0:14:55	0:29:49	3	0:22:13	1:06:40	3	0:12:35	0:37:46	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:16:46	2:14:15
Terminal 1	B7	0	0:00:00	0:00:00	3	0:22:02	1:06:07	2	0:12:32	0:25:03	0	0:00:00	0:00:00	1	0:18:43	0:18:43	6	0:18:18	1:49:53
Terminal 1	B8	2	0:15:39	0:31:17	4	0:21:35	1:26:22	2	0:12:18	0:24:37	0	0:00:00	0:00:00	1	0:18:31	0:18:31	9	0:17:51	2:40:47
Terminal 1	B9	1	0:14:20	0:14:20	1	0:21:39	0:21:39	3	0:12:23	0:37:08	0	0:00:00	0:00:00	2	0:18:19	0:36:38	7	0:15:40	1:49:45
Terminal 1	C1	3	0:11:25	0:34:16	5	0:17:58	1:29:51	4	0:08:28	0:33:50	1	0:05:46	0:05:46	0	0:00:00	0:00:00	13	0:12:35	2:43:43
Terminal 1	C10	1	0:11:45	0:11:45	2	0:19:03	0:38:07	3	0:09:32	0:28:36	1	0:07:07	0:07:07	1	0:15:45	0:15:45	8	0:12:40	1:41:20
Terminal 1	C11	5	0:15:59	1:19:54	1	0:22:25	0:22:25	4	0:12:55	0:51:38	1	0:10:38	0:10:38	0	0:00:00	0:00:00	11	0:14:57	2:44:35
Terminal 1	C12	2	0:11:41	0:23:23	3	0:18:58	0:56:55	1	0:09:56	0:09:56	0	0:00:00	0:00:00	1	0:15:42	0:15:42	7	0:15:08	1:45:56
Terminal 1	C15	0	0:00:00	0:00:00	1	0:22:14	0:22:14	4	0:12:43	0:50:53	0	0:00:00	0:00:00	1	0:18:54	0:18:54	6	0:15:20	1:32:01
Terminal 1	C16	0	0:00:00	0:00:00	2	0:18:28	0:36:57	0	0:00:00	0:00:00	1	0:06:53	0:06:53	0	0:00:00	0:00:00	3	0:14:36	0:43:50
Terminal 1	C17	1	0:14:41	0:14:41	1	0:21:59	0:21:59	2	0:12:51	0:25:42	0	0:00:00	0:00:00	1	0:18:44	0:18:44	5	0:16:13	1:21:06
Terminal 1	C18	1	0:14:00	0:14:00	1	0:18:06	0:18:06	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:16:03	0:32:06
Terminal 1	C19	3	0:15:06	0:45:17	3	0:21:43	1:05:09	3	0:12:02	0:36:06	0	0:00:00	0:00:00	0	0:00:00	0:00:00	9	0:16:16	2:26:32
Terminal 1	C2	3	0:10:37	0:31:51	3	0:17:55	0:53:45	2	0:09:00	0:17:59	1	0:05:59	0:05:59	3	0:14:36	0:43:49	12	0:12:46	2:33:23
Terminal 1	C20	0	0:00:00	0:00:00	1	0:19:16	0:19:16	2	0:09:36	0:19:13	0	0:00:00	0:00:00	2	0:15:59	0:31:58	5	0:14:05	1:10:27
Terminal 1	C21	3	0:14:11	0:42:34	2	0:21:29	0:42:58	4	0:12:10	0:48:40	0	0:00:00	0:00:00	1	0:18:11	0:18:11	10	0:15:14	2:32:23
Terminal 1	C22	1	0:12:12	0:12:12	2	0:19:21	0:38:43	4	0:09:52	0:39:30	1	0:07:15	0:07:15	0	0:00:00	0:00:00	8	0:12:12	1:37:40
Terminal 1	C23	2	0:13:57	0:27:55	5	0:21:12	1:46:04	2	0:12:09	0:24:18	0	0:00:00	0:00:00	0	0:00:00	0:00:00	9	0:17:35	2:38:17
Terminal 1	C24	1	0:12:07	0:12:07	4	0:19:25	1:17:40	4	0:09:54	0:39:35	3	0:07:22	0:22:08	1	0:15:47	0:15:47	13	0:12:52	2:47:17
Terminal 1	C25	6	0:13:44	1:22:25	1	0:21:04	0:21:04	0	0:00:00	0:00:00	1	0:09:06	0:09:06	1	0:17:45	0:17:45	9	0:14:28	2:10:20
Terminal 1	C26	4	0:12:13	0:48:53	4	0:19:30	1:18:03	1	0:10:00	0:10:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	9	0:15:12	2:16:56
Terminal 1	C27	3	0:14:09	0:42:26	3	0:20:41	1:02:03	1	0:10:51	0:10:51	0	0:00:00	0:00:00	1	0:17:04	0:17:04	8	0:16:33	2:12:24
Terminal 1	C28	3	0:12:11	0:36:34	5	0:19:35	1:37:57	1	0:10:04	0:10:04	0	0:00:00	0:00:00	0	0:00:00	0:00:00	9	0:16:03	2:24:35
Terminal 1	C29	2	0:13:01	0:26:02	4	0:20:18	1:21:15	2	0:10:48	0:21:37	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:16:06	2:08:54

TERMINAL	GATE	9 #	9 AVG	9 TOTAL	09L #	09L AVG	09L TOTAL	10 #	10 AVG	10 TOTAL	10L #	10L AVG	10L TOTAL	10R #	10R AVG	10R TOTAL	ALL RUNWAYS #	ALL RUNWAYS AVG	ALL RUNWAYS TOTAL
Terminal 1	C3	2	0:10:49	0:21:38	5	0:18:05	1:30:27	4	0:08:51	0:35:23	1	0:06:10	0:06:10	1	0:14:47	0:14:47	13	0:12:57	2:48:25
Terminal 1	C30	3	0:13:09	0:39:26	1	0:19:50	0:19:50	3	0:10:18	0:30:54	0	0:00:00	0:00:00	1	0:16:31	0:16:31	8	0:13:20	1:46:41
Terminal 1	C31	2	0:12:29	0:24:58	1	0:19:28	0:19:28	4	0:10:28	0:41:53	0	0:00:00	0:00:00	2	0:16:29	0:32:59	9	0:13:15	1:59:18
Terminal 1	C32	2	0:12:16	0:24:33	5	0:19:34	1:37:51	1	0:10:05	0:10:05	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:16:33	2:12:29
Terminal 1	C4	1	0:10:47	0:10:47	6	0:18:04	1:48:26	0	0:00:00	0:00:00	1	0:05:52	0:05:52	1	0:14:46	0:14:46	9	0:15:32	2:19:51
Terminal 1	C5	1	0:15:38	0:15:38	7	0:22:52	2:40:09	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:21:58	2:55:47
Terminal 1	C6	3	0:12:05	0:36:16	3	0:18:38	0:55:56	3	0:09:06	0:27:19	1	0:06:43	0:06:43	0	0:00:00	0:00:00	10	0:12:37	2:06:14
Terminal 1	C7	2	0:16:43	0:33:26	2	0:22:52	0:45:45	2	0:13:23	0:26:46	2	0:10:50	0:21:41	1	0:19:36	0:19:36	9	0:16:21	2:27:14
Terminal 1	C8	1	0:11:41	0:11:41	2	0:18:58	0:37:57	4	0:09:28	0:37:53	3	0:07:03	0:21:09	2	0:15:40	0:31:21	12	0:11:40	2:20:01
Terminal 1	C9	1	0:15:03	0:15:03	3	0:22:39	1:07:59	5	0:13:15	1:06:17	0	0:00:00	0:00:00	1	0:19:24	0:19:24	10	0:16:52	2:48:43
Terminal 2	E1	3	0:18:01	0:54:04	1	0:24:36	0:24:36	0	0:00:00	0:00:00	1	0:11:57	0:11:57	0	0:00:00	0:00:00	5	0:18:07	1:30:37
Terminal 2	E10	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:09:55	0:59:33	0	0:00:00	0:00:00	1	0:15:29	0:15:29	7	0:10:43	1:15:02
Terminal 2	E11	0	0:00:00	0:00:00	1	0:17:44	0:17:44	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:17:44	0:17:44
Terminal 2	E12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:09:45	0:58:32	1	0:06:05	0:06:05	1	0:15:17	0:15:17	8	0:09:59	1:19:54
Terminal 2	E13	2	0:10:24	0:20:47	3	0:17:40	0:53:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:14:45	1:13:47
Terminal 2	E14	1	0:10:39	0:10:39	4	0:18:10	1:12:40	2	0:09:45	0:19:29	2	0:05:52	0:11:44	1	0:14:38	0:14:38	10	0:12:55	2:09:10
Terminal 2	E15	0	0:00:00	0:00:00	2	0:17:51	0:35:42	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:14:33	0:29:06	4	0:16:12	1:04:48
Terminal 2	E2	2	0:19:24	0:38:48	0	0:00:00	0:00:00	2	0:15:36	0:31:12	0	0:00:00	0:00:00	1	0:21:00	0:21:00	5	0:18:12	1:31:00
Terminal 2	E2A	3	0:18:40	0:55:59	1	0:24:12	0:24:12	0	0:00:00	0:00:00	2	0:12:10	0:24:20	0	0:00:00	0:00:00	6	0:17:25	1:44:31
Terminal 2	E3	2	0:19:19	0:38:38	1	0:24:21	0:24:21	1	0:16:24	0:16:24	2	0:11:58	0:23:56	1	0:20:22	0:20:22	7	0:17:40	2:03:41
Terminal 2	E4	2	0:16:52	0:33:44	0	0:00:00	0:00:00	3	0:14:49	0:44:27	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:15:38	1:18:11
Terminal 2	E6	2	0:18:59	0:37:57	1	0:23:05	0:23:05	1	0:15:34	0:15:34	1	0:11:37	0:11:37	0	0:00:00	0:00:00	5	0:17:38	1:28:13
Terminal 2	E7	1	0:12:44	0:12:44	7	0:17:46	2:04:25	0	0:00:00	0:00:00	1	0:05:49	0:05:49	0	0:00:00	0:00:00	9	0:15:53	2:22:58
Terminal 2	E8	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:15:06	0:30:13	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:15:06	0:30:13
Terminal 2	E9	2	0:11:34	0:23:09	5	0:17:45	1:28:45	1	0:08:13	0:08:13	1	0:05:31	0:05:31	0	0:00:00	0:00:00	9	0:13:57	2:05:38
Terminal 2	F10	2	0:12:16	0:24:32	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:12:16	0:24:32
Terminal 2	F11	3	0:10:31	0:31:33	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:04:39	0:04:39	0	0:00:00	0:00:00	4	0:09:03	0:36:12
Terminal 2	F12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:08:02	0:16:04	0	0:00:00	0:00:00	2	0:13:28	0:26:57	4	0:10:45	0:43:01
Terminal 2	F14	3	0:11:49	0:35:27	1	0:17:28	0:17:28	3	0:08:18	0:24:55	0	0:00:00	0:00:00	1	0:14:33	0:14:33	8	0:11:32	1:32:23
Terminal 2	F1A	5	0:12:10	1:00:50	0	0:00:00	0:00:00	5	0:09:57	0:49:47	0	0:00:00	0:00:00	0	0:00:00	0:00:00	10	0:11:03	1:50:37
Terminal 2	F1B	4	0:11:56	0:47:42	4	0:19:13	1:16:55	4	0:09:43	0:38:51	1	0:05:44	0:05:44	0	0:00:00	0:00:00	13	0:13:00	2:49:12
Terminal 2	F1C	3	0:11:45	0:35:14	5	0:19:03	1:35:15	4	0:09:33	0:38:11	0	0:00:00	0:00:00	0	0:00:00	0:00:00	12	0:14:03	2:48:40
Terminal 2	F2A	2	0:12:05	0:24:11	4	0:19:22	1:17:28	4	0:09:52	0:39:30	0	0:00:00	0:00:00	0	0:00:00	0:00:00	10	0:14:06	2:21:09
Terminal 2	F2B	6	0:11:56	1:11:38	4	0:19:14	1:16:59	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	10	0:14:51	2:28:37
Terminal 2	F2C	4	0:11:45	0:46:59	2	0:19:03	0:38:06	2	0:09:33	0:19:06	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:13:01	1:44:11
Terminal 2	F2D	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:09:24	0:18:47	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:09:23	0:18:47
Terminal 2	F3A	2	0:12:00	0:24:00	2	0:19:18	0:38:37	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:15:39	1:02:37
Terminal 2	F3B	5	0:11:51	0:59:13	1	0:19:08	0:19:08	3	0:09:38	0:28:55	0	0:00:00	0:00:00	0	0:00:00	0:00:00	9	0:11:55	1:47:16
Terminal 2	F3C	2	0:11:41	0:23:22	2	0:18:59	0:37:58	3	0:09:29	0:28:27	0	0:00:00	0:00:00	1	0:15:41	0:15:41	8	0:13:11	1:45:28
Terminal 2	F3D	5	0:11:34	0:57:49	2	0:18:51	0:37:42	2	0:09:22	0:18:44	0	0:00:00	0:00:00	1	0:15:34	0:15:34	10	0:12:58	2:09:49
Terminal 2	F4	0	0:00:00	0:00:00	1	0:19:07	0:19:07	4	0:09:49	0:39:16	0	0:00:00	0:00:00	2	0:15:48	0:31:37	7	0:12:51	1:30:00
Terminal 2	F5	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:09:10	1:13:19	0	0:00:00	0:00:00	1	0:15:21	0:15:21	9	0:09:51	1:28:40
Terminal 2	F6	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:08:15	0:24:45	1	0:05:44	0:05:44	1	0:13:44	0:13:44	5	0:08:50	0:44:13
Terminal 2	F7	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:08:57	0:08:57	0	0:00:00	0:00:00	1	0:15:10	0:15:10	2	0:12:03	0:24:07
Terminal 2	F8	3	0:12:26	0:37:19	0	0:00:00	0:00:00	2	0:08:02	0:16:04	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:10:40	0:53:23
Terminal 2	F9	3	0:10:47	0:32:21	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:04:56	0:04:56	0	0:00:00	0:00:00	4	0:09:19	0:37:17
South Cargo	FE-1	2	0:15:28	0:30:55	1	0:22:43	0:22:43	2	0:07:09	0:14:19	8	0:08:07	1:05:00	0	0:00:00	0:00:00	13	0:10:13	2:12:57
South Cargo	FE-10	2	0:19:22	0:38:43	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:10:43	0:53:36	0	0:00:00	0:00:00	7	0:13:11	1:32:19

TERMINAL	GATE	9			09L			10			10L			10R			ALL RUNWAYS		
		#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL
South Cargo	FE-11	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:11:01	0:44:05	0	0:00:00	0:00:00	4	0:11:01	0:44:05
South Cargo	FE-2	0	0:00:00	0:00:00	1	0:22:04	0:22:04	0	0:00:00	0:00:00	5	0:07:47	0:38:58	0	0:00:00	0:00:00	6	0:10:10	1:01:02
South Cargo	FE-3	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:07:56	0:07:56	0	0:00:00	0:00:00	1	0:07:56	0:07:56
Terminal 3	G10	1	0:11:24	0:11:24	2	0:18:44	0:37:28	1	0:09:15	0:09:15	0	0:00:00	0:00:00	1	0:15:24	0:15:24	5	0:14:42	1:13:31
Terminal 3	G11	2	0:11:51	0:23:41	3	0:19:11	0:57:34	4	0:09:39	0:38:34	0	0:00:00	0:00:00	1	0:15:55	0:15:55	10	0:13:34	2:15:44
Terminal 3	G12	0	0:00:00	0:00:00	3	0:18:49	0:56:27	2	0:09:18	0:18:37	0	0:00:00	0:00:00	1	0:15:30	0:15:30	6	0:15:05	1:30:34
Terminal 3	G14	2	0:11:02	0:22:05	2	0:18:20	0:36:41	5	0:08:50	0:44:12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	9	0:11:26	1:42:58
Terminal 3	G14A	1	0:11:08	0:11:08	1	0:18:26	0:18:26	6	0:08:56	0:53:34	0	0:00:00	0:00:00	1	0:15:08	0:15:08	9	0:10:55	1:38:16
Terminal 3	G15	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:09:31	0:19:01	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:09:30	0:19:01
Terminal 3	G16	2	0:10:41	0:21:22	2	0:17:42	0:35:25	2	0:08:28	0:16:56	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:12:17	1:13:43
Terminal 3	G17	2	0:12:41	0:25:22	1	0:18:51	0:18:51	4	0:09:21	0:37:25	1	0:04:16	0:04:16	0	0:00:00	0:00:00	8	0:10:44	1:25:54
Terminal 3	G18	0	0:00:00	0:00:00	5	0:17:49	1:29:06	2	0:08:18	0:16:37	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:15:06	1:45:43
Terminal 3	G19	0	0:00:00	0:00:00	2	0:19:01	0:38:03	2	0:09:05	0:18:11	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:14:03	0:56:14
Terminal 3	G19A	1	0:11:26	0:11:26	1	0:18:40	0:18:40	6	0:09:18	0:55:45	0	0:00:00	0:00:00	4	0:15:32	1:02:08	12	0:12:19	2:27:59
Terminal 3	G1A	4	0:12:31	0:50:04	3	0:19:51	0:59:33	1	0:10:21	0:10:21	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:14:59	1:59:58
Terminal 3	G1B	1	0:12:37	0:12:37	2	0:19:52	0:39:44	5	0:10:25	0:52:04	0	0:00:00	0:00:00	1	0:16:38	0:16:38	9	0:13:27	2:01:03
Terminal 3	G20	3	0:11:04	0:33:11	4	0:18:22	1:13:28	2	0:08:51	0:17:43	1	0:04:09	0:04:09	0	0:00:00	0:00:00	10	0:12:51	2:08:31
Terminal 3	G21	0	0:00:00	0:00:00	1	0:19:24	0:19:24	6	0:09:09	0:54:54	0	0:00:00	0:00:00	1	0:15:38	0:15:38	8	0:11:14	1:29:56
Terminal 3	G2A	2	0:12:04	0:24:08	2	0:19:22	0:38:44	3	0:09:52	0:29:35	0	0:00:00	0:00:00	1	0:16:03	0:16:03	8	0:13:33	1:48:30
Terminal 3	G2B	1	0:11:56	0:11:56	3	0:19:14	0:57:43	3	0:09:44	0:29:12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:14:07	1:38:51
Terminal 3	G3	2	0:12:26	0:24:51	1	0:19:41	0:19:41	2	0:10:39	0:21:17	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:13:09	1:05:49
Terminal 3	G4	1	0:11:51	0:11:51	1	0:19:09	0:19:09	4	0:09:39	0:38:37	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:11:36	1:09:37
Terminal 3	G5	0	0:00:00	0:00:00	3	0:19:23	0:58:10	3	0:10:02	0:30:05	0	0:00:00	0:00:00	2	0:16:18	0:32:37	8	0:15:06	2:00:52
Terminal 3	G6	3	0:11:39	0:34:58	2	0:18:57	0:37:55	1	0:09:27	0:09:27	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:13:43	1:22:20
Terminal 3	G7	1	0:12:18	0:12:18	2	0:19:21	0:38:43	4	0:10:03	0:40:11	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:13:01	1:31:12
Terminal 3	G8	3	0:11:31	0:34:32	2	0:18:32	0:37:05	2	0:09:19	0:18:38	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:12:53	1:30:15
Terminal 3	G9	3	0:11:59	0:35:57	2	0:19:15	0:38:30	1	0:09:41	0:09:41	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:14:01	1:24:08
General Aviation	GA1	4	0:04:58	0:19:50	5	0:04:19	0:21:38	1	0:20:56	0:20:56	3	0:19:31	0:58:33	2	0:27:08	0:54:16	15	0:11:40	2:55:13
General Aviation	GA10	7	0:05:25	0:37:54	2	0:04:47	0:09:34	1	0:21:24	0:21:24	0	0:00:00	0:00:00	1	0:27:33	0:27:33	11	0:08:45	1:36:25
General Aviation	GA11	6	0:05:28	0:32:48	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:20:00	0:20:00	0	0:00:00	0:00:00	7	0:07:32	0:52:48
General Aviation	GA12	1	0:05:32	0:05:32	1	0:04:57	0:04:57	5	0:23:40	1:58:19	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:18:24	2:08:48
General Aviation	GA13	2	0:05:51	0:11:42	3	0:05:13	0:15:40	1	0:32:27	0:32:27	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:09:58	0:59:49
General Aviation	GA14	3	0:06:04	0:18:11	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:06:03	0:18:11
General Aviation	GA2	1	0:06:15	0:06:15	2	0:05:23	0:10:46	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:05:40	0:17:01
General Aviation	GA4	1	0:05:25	0:05:25	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:05:25	0:05:25
Terminal 3	H1	3	0:14:09	0:42:27	3	0:19:40	0:59:01	2	0:10:28	0:20:56	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:15:18	2:02:24
Terminal 3	H10	3	0:12:51	0:38:34	2	0:19:13	0:38:27	0	0:00:00	0:00:00	2	0:04:26	0:08:52	0	0:00:00	0:00:00	7	0:12:16	1:25:53
Terminal 3	H11A	5	0:13:35	1:07:55	0	0:00:00	0:00:00	2	0:10:26	0:20:52	1	0:04:06	0:04:06	0	0:00:00	0:00:00	8	0:11:36	1:32:53
Terminal 3	H11B	2	0:14:30	0:29:00	1	0:19:32	0:19:32	1	0:10:04	0:10:04	1	0:04:12	0:04:12	2	0:16:14	0:32:28	7	0:13:36	1:35:16
Terminal 3	H12	2	0:12:22	0:24:44	3	0:18:10	0:54:32	4	0:09:16	0:37:05	0	0:00:00	0:00:00	0	0:00:00	0:00:00	9	0:12:55	1:56:21
Terminal 3	H13	2	0:14:42	0:29:24	0	0:00:00	0:00:00	6	0:10:31	1:03:04	1	0:03:46	0:03:46	0	0:00:00	0:00:00	9	0:10:41	1:36:14
Terminal 3	H14	5	0:11:26	0:57:10	2	0:18:22	0:36:44	0	0:00:00	0:00:00	1	0:04:01	0:04:01	0	0:00:00	0:00:00	8	0:12:14	1:37:55
Terminal 3	H15	3	0:12:43	0:38:10	2	0:18:57	0:37:54	1	0:09:44	0:09:44	0	0:00:00	0:00:00	1	0:15:56	0:15:56	7	0:14:32	1:41:44
Terminal 3	H16	3	0:12:11	0:36:33	4	0:17:49	1:11:19	3	0:08:42	0:26:07	1	0:03:46	0:03:46	0	0:00:00	0:00:00	11	0:12:31	2:17:45
Terminal 3	H17	4	0:13:11	0:52:45	1	0:18:47	0:18:47	3	0:09:17	0:27:50	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:12:25	1:39:22
Terminal 3	H18	1	0:13:39	0:13:39	2	0:18:42	0:37:25	2	0:09:59	0:19:58	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:14:12	1:11:02
Terminal 3	H2	5	0:13:42	1:08:29	3	0:19:22	0:58:06	4	0:10:15	0:41:01	0	0:00:00	0:00:00	0	0:00:00	0:00:00	12	0:13:58	2:47:36
Terminal 3	H3	3	0:14:31	0:43:32	5	0:19:17	1:36:27	2	0:11:13	0:22:25	1	0:05:20	0:05:20	0	0:00:00	0:00:00	11	0:15:14	2:47:44

TERMINAL	GATE	9 #	9 AVG	9 TOTAL	09L #	09L AVG	09L TOTAL	10 #	10 AVG	10 TOTAL	10L #	10L AVG	10L TOTAL	10R #	10R AVG	10R TOTAL	ALL RUNWAYS #	ALL RUNWAYS AVG	ALL RUNWAYS TOTAL
Terminal 3	H4	3	0:14:27	0:43:21	4	0:19:25	1:17:40	3	0:10:15	0:30:44	0	0:00:00	0:00:00	0	0:00:00	0:00:00	10	0:15:10	2:31:45
Terminal 3	H5	2	0:13:03	0:26:07	4	0:19:04	1:16:17	1	0:10:30	0:10:30	0	0:00:00	0:00:00	2	0:15:35	0:31:11	9	0:16:00	2:24:05
Terminal 3	H6	3	0:12:35	0:37:46	4	0:19:03	1:16:12	3	0:09:49	0:29:26	0	0:00:00	0:00:00	0	0:00:00	0:00:00	10	0:14:20	2:23:24
Terminal 3	H8	1	0:13:48	0:13:48	4	0:18:50	1:15:20	1	0:10:07	0:10:07	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:16:32	1:39:15
Terminal 3	H9	3	0:13:15	0:39:46	2	0:19:48	0:39:36	1	0:11:06	0:11:06	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:15:04	1:30:28
Terminal 5/6	M10	1	0:14:39	0:14:39	0	0:00:00	0:00:00	1	0:10:58	0:10:58	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:12:48	0:25:37
Terminal 5/6	M11	2	0:13:50	0:27:40	1	0:19:59	0:19:59	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:15:53	0:47:39
Terminal 5/6	M12	0	0:00:00	0:00:00	2	0:19:41	0:39:22	1	0:10:38	0:10:38	0	0:00:00	0:00:00	1	0:16:05	0:16:05	4	0:16:31	1:06:05
Terminal 5/6	M13	1	0:13:01	0:13:01	1	0:19:17	0:19:17	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:16:09	0:32:18
Terminal 5/6	M15	2	0:14:37	0:29:14	0	0:00:00	0:00:00	1	0:03:29	0:03:29	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:10:54	0:32:43
Terminal 5/6	M16	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:16:51	0:16:51	1	0:16:51	0:16:51
Terminal 5/6	M17	1	0:13:28	0:13:28	3	0:19:59	0:59:58	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:17:19	0:17:19	5	0:18:09	1:30:45
Terminal 5/6	M18	4	0:14:08	0:56:31	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:02:52	0:08:37	2	0:16:50	0:33:41	9	0:10:58	1:38:49
Terminal 5/6	M19	1	0:15:57	0:15:57	0	0:00:00	0:00:00	1	0:12:07	0:12:07	3	0:03:03	0:09:10	1	0:16:55	0:16:55	6	0:09:01	0:54:09
Terminal 5/6	M2	0	0:00:00	0:00:00	1	0:20:28	0:20:28	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:20:28	0:20:28
Terminal 5/6	M20	2	0:15:05	0:30:11	2	0:20:46	0:41:33	0	0:00:00	0:00:00	2	0:03:12	0:06:25	0	0:00:00	0:00:00	6	0:13:01	1:18:09
Terminal 5/6	M21	0	0:00:00	0:00:00	2	0:21:17	0:42:34	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:21:17	0:42:34
Terminal 5/6	M22	1	0:16:48	0:16:48	3	0:21:21	1:04:05	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:20:13	1:20:53
Terminal 5/6	M23	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:05:13	0:05:13	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:05:13	0:05:13
Terminal 5/6	M24	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:05:13	0:05:13	0	0:00:00	0:00:00	1	0:05:13	0:05:13
Terminal 5/6	M25	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:05:27	0:05:27	0	0:00:00	0:00:00	1	0:05:27	0:05:27
Terminal 5/6	M26	1	0:18:31	0:18:31	0	0:00:00	0:00:00	2	0:14:49	0:29:39	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:16:03	0:48:10
Terminal 5/6	M27	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:15:25	1:01:39	1	0:06:00	0:06:00	0	0:00:00	0:00:00	5	0:13:31	1:07:39
Terminal 5/6	M28	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:15:15	0:45:44	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:15:14	0:45:44
Terminal 5/6	M29	0	0:00:00	0:00:00	1	0:24:26	0:24:26	2	0:14:47	0:29:34	1	0:06:19	0:06:19	0	0:00:00	0:00:00	4	0:15:04	1:00:19
Terminal 5/6	M3	1	0:13:05	0:13:05	0	0:00:00	0:00:00	1	0:11:35	0:11:35	0	0:00:00	0:00:00	1	0:17:00	0:17:00	3	0:13:53	0:41:40
Terminal 5/6	M30	4	0:17:23	1:09:34	0	0:00:00	0:00:00	1	0:14:49	0:14:49	0	0:00:00	0:00:00	1	0:21:19	0:21:19	6	0:17:37	1:45:42
Terminal 5/6	M31	0	0:00:00	0:00:00	1	0:24:18	0:24:18	1	0:16:57	0:16:57	1	0:07:07	0:07:07	0	0:00:00	0:00:00	3	0:16:07	0:48:22
Terminal 5/6	M32	0	0:00:00	0:00:00	1	0:25:20	0:25:20	6	0:16:09	1:36:54	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:17:27	2:02:14
Terminal 5/6	M33	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:16:41	1:06:45	0	0:00:00	0:00:00	1	0:22:17	0:22:17	5	0:17:48	1:29:02
Terminal 5/6	M34	0	0:00:00	0:00:00	1	0:24:43	0:24:43	6	0:16:39	1:39:56	0	0:00:00	0:00:00	1	0:22:36	0:22:36	8	0:18:24	2:27:15
Terminal 5/6	M4	0	0:00:00	0:00:00	1	0:19:30	0:19:30	1	0:12:10	0:12:10	0	0:00:00	0:00:00	1	0:16:16	0:16:16	3	0:15:58	0:47:56
Terminal 5/6	M5	1	0:15:06	0:15:06	2	0:19:47	0:39:35	0	0:00:00	0:00:00	1	0:03:17	0:03:17	0	0:00:00	0:00:00	4	0:14:29	0:57:58
Terminal 5/6	M7	0	0:00:00	0:00:00	1	0:19:21	0:19:21	2	0:11:21	0:22:41	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:14:00	0:42:02
Terminal 5/6	M8	0	0:00:00	0:00:00	2	0:19:39	0:39:18	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:16:40	0:16:40	3	0:18:39	0:55:58
Terminal 5/6	M9	0	0:00:00	0:00:00	2	0:19:21	0:38:43	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:19:21	0:38:43
Terminal 7	JET-1	1	0:05:42	0:05:42	1	0:12:58	0:12:58	3	0:09:35	0:28:46	0	0:00:00	0:00:00	1	0:16:27	0:16:27	6	0:10:38	1:03:53
Terminal 7	JET-10	1	0:08:07	0:08:07	4	0:13:02	0:52:09	0	0:00:00	0:00:00	1	0:13:25	0:13:25	0	0:00:00	0:00:00	6	0:12:16	1:13:41
Terminal 7	JET-11	2	0:07:22	0:14:43	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:14:13	0:14:13	3	0:09:38	0:28:56
Terminal 7	JET-12	2	0:09:12	0:18:24	1	0:14:00	0:14:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:10:48	0:32:24
Terminal 7	JET-13	1	0:09:48	0:09:48	2	0:17:07	0:34:14	3	0:05:06	0:15:18	0	0:00:00	0:00:00	1	0:11:17	0:11:17	7	0:10:05	1:10:37
Terminal 7	JET-14	3	0:09:53	0:29:40	4	0:17:10	1:08:40	4	0:05:08	0:20:33	0	0:00:00	0:00:00	0	0:00:00	0:00:00	11	0:10:48	1:58:53
Terminal 7	JET-15	3	0:09:57	0:29:52	2	0:17:15	0:34:30	2	0:05:14	0:10:28	0	0:00:00	0:00:00	3	0:11:25	0:34:17	10	0:10:54	1:49:07
Terminal 7	JET-16	1	0:10:02	0:10:02	0	0:00:00	0:00:00	4	0:05:18	0:21:14	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:06:15	0:31:16
Terminal 7	JET-17	1	0:09:14	0:09:14	1	0:09:14	0:09:14	1	0:09:14	0:09:14	1	0:09:14	0:09:14	1	0:09:14	0:09:14	1	0:09:14	0:09:14
Terminal 7	JET-19	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:07:00	0:07:00	0	0:00:00	0:00:00	1	0:13:10	0:13:10	2	0:10:05	0:20:10
Terminal 7	JET-2	0	0:00:00	0:00:00	2	0:13:54	0:27:48	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:12:59	0:12:59	3	0:13:35	0:40:47
Terminal 7	JET-21	1	0:10:12	0:10:12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:10:12	0:10:12

TERMINAL	GATE	9 #	9 AVG	9 TOTAL	09L #	09L AVG	09L TOTAL	10 #	10 AVG	10 TOTAL	10L #	10L AVG	10L TOTAL	10R #	10R AVG	10R TOTAL	ALL RUNWAYS #	ALL RUNWAYS AVG	ALL RUNWAYS TOTAL
Terminal 7	JET-22	1	0:09:14	0:09:14	1	0:09:14	0:09:14	1	0:09:14	0:09:14	1	0:09:14	0:09:14	1	0:09:14	0:09:14	1	0:09:14	0:09:14
Terminal 7	JET-23	0	0:00:00	0:00:00	2	0:16:19	0:32:38	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:16:19	0:32:38
Terminal 7	JET-25	1	0:06:54	0:06:54	1	0:13:35	0:13:35	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:10:14	0:20:29
Terminal 7	JET-26	1	0:07:19	0:07:19	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:07:19	0:07:19
Terminal 7	JET-28	0	0:00:00	0:00:00	2	0:14:44	0:29:29	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:14:44	0:29:29
Terminal 7	JET-29	0	0:00:00	0:00:00	1	0:16:31	0:16:31	1	0:05:32	0:05:32	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:11:01	0:22:03
Terminal 7	JET-3	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:08:37	0:08:37	0	0:00:00	0:00:00	1	0:14:45	0:14:45	2	0:11:41	0:23:22
Terminal 7	JET-31	1	0:06:21	0:06:21	4	0:13:37	0:54:30	1	0:07:03	0:07:03	0	0:00:00	0:00:00	1	0:13:16	0:13:16	7	0:11:35	1:21:10
Terminal 7	JET-34	0	0:00:00	0:00:00	1	0:17:28	0:17:28	1	0:05:25	0:05:25	0	0:00:00	0:00:00	3	0:11:36	0:34:50	5	0:11:32	0:57:43
Terminal 7	JET-4	0	0:00:00	0:00:00	4	0:13:28	0:53:54	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:13:28	0:53:54
Terminal 7	JET-40	2	0:10:04	0:20:09	1	0:14:13	0:14:13	1	0:07:25	0:07:25	1	0:11:07	0:11:07	0	0:00:00	0:00:00	5	0:10:34	0:52:54
Terminal 7	JET-41	1	0:08:09	0:08:09	1	0:14:50	0:14:50	2	0:06:49	0:13:39	0	0:00:00	0:00:00	1	0:11:57	0:11:57	5	0:09:43	0:48:35
Terminal 7	JET-42	2	0:08:56	0:17:52	1	0:15:46	0:15:46	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:11:12	0:33:38
Terminal 7	JET-43	2	0:13:02	0:26:04	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:13:02	0:26:04
Terminal 7	JET-44	0	0:00:00	0:00:00	1	0:18:34	0:18:34	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:18:34	0:18:34
Terminal 7	JET-45	1	0:13:38	0:13:38	0	0:00:00	0:00:00	1	0:07:03	0:07:03	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:10:20	0:20:41
Terminal 7	JET-46	0	0:00:00	0:00:00	1	0:14:12	0:14:12	2	0:06:50	0:13:41	0	0:00:00	0:00:00	2	0:13:02	0:26:04	5	0:10:47	0:53:57
Terminal 7	JET-7	2	0:07:00	0:14:00	1	0:11:17	0:11:17	1	0:10:36	0:10:36	1	0:14:17	0:14:17	0	0:00:00	0:00:00	5	0:10:02	0:50:10
Terminal 7	JET-8	2	0:05:28	0:10:56	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:13:50	0:13:50	1	0:16:08	0:16:08	4	0:10:13	0:40:54
Terminal 7	JET-9	1	0:07:50	0:07:50	1	0:13:00	0:13:00	1	0:11:12	0:11:12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:10:40	0:32:02
Terminal 3	K1	2	0:14:36	0:29:12	5	0:21:40	1:48:24	1	0:12:11	0:12:11	0	0:00:00	0:00:00	1	0:18:37	0:18:37	9	0:18:42	2:48:24
Terminal 3	K10	5	0:13:24	1:07:02	2	0:19:47	0:39:35	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:15:13	1:46:37
Terminal 3	K11	1	0:13:30	0:13:30	1	0:21:29	0:21:29	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:17:29	0:34:59
Terminal 3	K12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:09:45	0:29:16	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:09:45	0:29:16
Terminal 3	K13	6	0:14:56	1:29:39	1	0:20:35	0:20:35	4	0:11:53	0:47:32	1	0:04:03	0:04:03	0	0:00:00	0:00:00	12	0:13:29	2:41:49
Terminal 3	K14	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:03:50	0:03:50	0	0:00:00	0:00:00	1	0:03:50	0:03:50
Terminal 3	K15	1	0:15:21	0:15:21	2	0:20:22	0:40:45	1	0:11:41	0:11:41	1	0:03:46	0:03:46	1	0:17:04	0:17:04	6	0:14:46	1:28:37
Terminal 3	K16	2	0:13:44	0:27:28	2	0:18:28	0:36:57	4	0:09:16	0:37:04	1	0:03:12	0:03:12	1	0:15:28	0:15:28	10	0:12:00	2:00:09
Terminal 3	K17	3	0:14:25	0:43:15	1	0:20:11	0:20:11	3	0:11:36	0:34:47	0	0:00:00	0:00:00	1	0:17:27	0:17:27	8	0:14:27	1:55:40
Terminal 3	K18	1	0:12:02	0:12:02	2	0:19:19	0:38:38	4	0:10:00	0:39:59	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:12:57	1:30:39
Terminal 3	K19	3	0:14:16	0:42:49	1	0:20:02	0:20:02	3	0:10:33	0:31:38	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:13:29	1:34:29
Terminal 3	K2	5	0:15:25	1:17:05	1	0:21:48	0:21:48	3	0:12:51	0:38:34	0	0:00:00	0:00:00	1	0:17:54	0:17:54	10	0:15:32	2:35:21
Terminal 3	K20	1	0:14:30	0:14:30	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:02:52	0:05:45	0	0:00:00	0:00:00	3	0:06:45	0:20:15
Terminal 3	K21	2	0:13:58	0:27:57	5	0:19:58	1:39:51	3	0:10:35	0:31:45	0	0:00:00	0:00:00	1	0:16:48	0:16:48	11	0:16:01	2:56:21
Terminal 3	K22	4	0:14:14	0:56:56	3	0:20:11	1:00:35	2	0:10:54	0:21:47	0	0:00:00	0:00:00	0	0:00:00	0:00:00	9	0:15:28	2:19:18
Terminal 3	K3	3	0:15:19	0:45:56	3	0:21:33	1:04:41	1	0:12:15	0:12:15	0	0:00:00	0:00:00	1	0:18:42	0:18:42	8	0:17:41	2:21:34
Terminal 3	K4	4	0:16:53	1:07:33	2	0:21:51	0:43:43	3	0:12:27	0:37:22	1	0:05:08	0:05:08	0	0:00:00	0:00:00	10	0:15:22	2:33:46
Terminal 3	K5	2	0:16:28	0:32:56	2	0:21:40	0:43:21	2	0:12:23	0:24:45	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:16:50	1:41:02
Terminal 3	K6A	3	0:12:20	0:37:01	1	0:19:36	0:19:36	3	0:10:22	0:31:07	1	0:04:28	0:04:28	0	0:00:00	0:00:00	8	0:11:31	1:32:12
Terminal 3	K6B	3	0:14:26	0:43:19	3	0:18:51	0:56:35	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:16:12	0:16:12	7	0:16:35	1:56:06
Terminal 3	K7	3	0:15:28	0:46:25	0	0:00:00	0:00:00	2	0:11:43	0:23:27	0	0:00:00	0:00:00	1	0:17:56	0:17:56	6	0:14:38	1:27:48
Terminal 3	K8	2	0:13:26	0:26:52	2	0:19:35	0:39:11	3	0:10:53	0:32:38	0	0:00:00	0:00:00	1	0:16:17	0:16:17	8	0:14:22	1:54:58
Terminal 3	K9	2	0:16:01	0:32:03	1	0:21:02	0:21:02	1	0:12:20	0:12:20	0	0:00:00	0:00:00	2	0:17:43	0:35:27	6	0:16:48	1:40:52
Terminal 3	L10	0	0:00:00	0:00:00	1	0:20:49	0:20:49	1	0:11:53	0:11:53	0	0:00:00	0:00:00	1	0:17:13	0:17:13	3	0:16:38	0:49:55
Terminal 3	L2	0	0:00:00	0:00:00	1	0:21:34	0:21:34	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:21:34	0:21:34
Terminal 3	L4	2	0:15:14	0:30:28	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:17:25	0:17:25	3	0:15:57	0:47:53
Terminal 3	L6	0	0:00:00	0:00:00	1	0:21:10	0:21:10	3	0:12:24	0:37:12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:14:35	0:58:22
Terminal 3	L8	2	0:14:38	0:29:17	0	0:00:00	0:00:00	1	0:12:44	0:12:44	1	0:04:13	0:04:13	0	0:00:00	0:00:00	4	0:11:33	0:46:14

TERMINAL	GATE	9 #	9 AVG	9 TOTAL	09L #	09L AVG	09L TOTAL	10 #	10 AVG	10 TOTAL	10L #	10L AVG	10L TOTAL	10R #	10R AVG	10R TOTAL	ALL RUNWAYS #	ALL RUNWAYS AVG	ALL RUNWAYS TOTAL
Terminal 7	RJ-1	2	0:09:13	0:18:25	1	0:16:30	0:16:30	3	0:06:05	0:18:16	0	0:00:00	0:00:00	2	0:12:40	0:25:20	8	0:09:48	1:18:31
Terminal 7	RJ-10	4	0:08:31	0:34:06	3	0:15:49	0:47:29	3	0:05:44	0:17:12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	10	0:09:52	1:38:47
Terminal 7	RJ-11	3	0:08:18	0:24:53	1	0:15:36	0:15:36	4	0:07:14	0:28:57	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:08:40	1:09:26
Terminal 7	RJ-12	1	0:08:10	0:08:10	3	0:15:27	0:46:22	2	0:07:14	0:14:27	1	0:09:32	0:09:32	0	0:00:00	0:00:00	7	0:11:13	1:18:31
Terminal 7	RJ-13	3	0:08:00	0:24:01	1	0:15:18	0:15:18	2	0:06:15	0:12:31	0	0:00:00	0:00:00	1	0:12:27	0:12:27	7	0:09:11	1:04:17
Terminal 7	RJ-14	2	0:07:52	0:15:44	6	0:15:10	1:31:04	4	0:06:36	0:26:23	0	0:00:00	0:00:00	1	0:12:46	0:12:46	13	0:11:13	2:25:57
Terminal 7	RJ-15	1	0:07:43	0:07:43	3	0:15:01	0:45:05	4	0:06:49	0:27:16	0	0:00:00	0:00:00	2	0:12:40	0:25:20	10	0:10:32	1:45:24
Terminal 7	RJ-16	2	0:08:09	0:16:17	5	0:15:27	1:17:17	3	0:07:18	0:21:55	0	0:00:00	0:00:00	0	0:00:00	0:00:00	10	0:11:32	1:55:29
Terminal 7	RJ-17	3	0:08:06	0:24:17	2	0:15:19	0:30:38	1	0:07:56	0:07:56	0	0:00:00	0:00:00	1	0:13:28	0:13:28	7	0:10:54	1:16:19
Terminal 7	RJ-18	2	0:07:52	0:15:45	3	0:15:10	0:45:32	3	0:07:06	0:21:19	0	0:00:00	0:00:00	2	0:12:57	0:25:54	10	0:10:51	1:48:30
Terminal 7	RJ-19	1	0:07:43	0:07:43	5	0:15:06	1:15:32	1	0:06:59	0:06:59	0	0:00:00	0:00:00	3	0:12:58	0:38:54	10	0:12:54	2:09:08
Terminal 7	RJ-2	1	0:09:03	0:09:03	5	0:16:19	1:21:39	3	0:05:57	0:17:51	0	0:00:00	0:00:00	1	0:12:08	0:12:08	10	0:12:04	2:00:41
Terminal 7	RJ-20	4	0:07:35	0:30:20	3	0:14:53	0:44:40	2	0:06:29	0:12:58	0	0:00:00	0:00:00	0	0:00:00	0:00:00	9	0:09:46	1:27:58
Terminal 7	RJ-23	1	0:07:23	0:07:23	2	0:14:40	0:29:21	2	0:06:57	0:13:53	0	0:00:00	0:00:00	1	0:13:30	0:13:30	6	0:10:41	1:04:07
Terminal 7	RJ-24	3	0:07:58	0:23:53	2	0:14:30	0:29:01	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:10:34	0:52:54
Terminal 7	RJ-25	0	0:00:00	0:00:00	4	0:14:23	0:57:32	2	0:06:49	0:13:37	0	0:00:00	0:00:00	2	0:13:16	0:26:32	8	0:12:12	1:37:41
Terminal 7	RJ-26	2	0:06:55	0:13:50	4	0:14:13	0:56:55	1	0:06:52	0:06:52	0	0:00:00	0:00:00	1	0:12:41	0:12:41	8	0:11:17	1:30:18
Terminal 7	RJ-3	3	0:08:55	0:26:45	2	0:16:13	0:32:27	4	0:05:48	0:23:12	0	0:00:00	0:00:00	1	0:12:00	0:12:00	10	0:09:26	1:34:24
Terminal 7	RJ-4	1	0:08:46	0:08:46	2	0:16:05	0:32:11	2	0:05:51	0:11:42	0	0:00:00	0:00:00	1	0:11:52	0:11:52	6	0:10:45	1:04:31
Terminal 7	RJ-5	3	0:08:39	0:25:56	3	0:15:55	0:47:46	3	0:05:39	0:16:57	0	0:00:00	0:00:00	0	0:00:00	0:00:00	9	0:10:04	1:30:39
Terminal 7	RJ-6	4	0:09:09	0:36:34	1	0:16:23	0:16:23	4	0:06:16	0:25:06	0	0:00:00	0:00:00	1	0:12:27	0:12:27	10	0:09:03	1:30:30
Terminal 7	RJ-7	1	0:08:56	0:08:56	4	0:16:17	1:05:09	3	0:06:09	0:18:27	0	0:00:00	0:00:00	2	0:12:20	0:24:40	10	0:11:43	1:57:12
Terminal 7	RJ-8	2	0:08:43	0:17:27	3	0:16:09	0:48:29	3	0:05:59	0:17:57	0	0:00:00	0:00:00	2	0:12:16	0:24:33	10	0:10:50	1:48:26
Terminal 7	RJ-9	2	0:08:39	0:17:19	2	0:15:59	0:31:58	6	0:05:51	0:35:06	0	0:00:00	0:00:00	0	0:00:00	0:00:00	10	0:08:26	1:24:23
Terminal 4	T4-11	0	0:00:00	0:00:00	1	0:20:31	0:20:31	2	0:11:38	0:23:17	0	0:00:00	0:00:00	1	0:17:11	0:17:11	4	0:15:14	1:00:59
Terminal 4	T4-12	6	0:16:22	1:38:11	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:16:21	1:38:11
Terminal 4	T4-13	1	0:16:22	0:16:22	1	0:20:45	0:20:45	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:17:28	0:17:28	3	0:18:11	0:54:35
Terminal 4	T4-5	0	0:00:00	0:00:00	1	0:20:06	0:20:06	2	0:12:01	0:24:02	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:14:42	0:44:08
Terminal 4	T4-7	2	0:14:44	0:29:27	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:14:43	0:29:27
Terminal 4	T4-8	3	0:16:14	0:48:43	0	0:00:00	0:00:00	1	0:14:08	0:14:08	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:15:42	1:02:51
Terminal 4	T4-9	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:12:14	0:24:28	1	0:04:24	0:04:24	1	0:17:39	0:17:39	4	0:11:37	0:46:31
	ALL GATES	459	0:12:24	94:53:38	485	0:18:31	149:41:47	495	0:10:17	84:50:42	102	0:07:35	12:54:19	146	0:16:05	39:08:45	1687	0:13:34	381:29:11

TAAM Project Name: data/projects/taam/KORD_EIS_EXP33.prj

ORD Departures
Unimpeded Taxi-Out Times - Departure Gate to Runway

Unimpeded Taxi-Out Times (HH:MM:SS)

		9			09R			10L			10R			10			ALL RUNWAYS		
TERMINAL	GATE	#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL
Terminal 1	B1	0	0:00:00	0:00:00	3	0:08:50	0:26:32	4	0:09:51	0:39:26	2	0:12:27	0:24:54	0	0:00:00	0:00:00	9	0:10:05	1:30:52
Terminal 1	B10	0	0:00:00	0:00:00	4	0:10:22	0:41:31	3	0:10:55	0:32:46	4	0:13:18	0:53:14	0	0:00:00	0:00:00	11	0:11:35	2:07:31
Terminal 1	B11	0	0:00:00	0:00:00	6	0:10:33	1:03:19	2	0:11:06	0:22:12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:10:41	1:25:31
Terminal 1	B12	0	0:00:00	0:00:00	4	0:10:12	0:40:51	2	0:11:15	0:22:31	1	0:14:09	0:14:09	0	0:00:00	0:00:00	7	0:11:04	1:17:31
Terminal 1	B14	0	0:00:00	0:00:00	1	0:10:07	0:10:07	1	0:12:52	0:12:52	3	0:14:34	0:43:42	0	0:00:00	0:00:00	5	0:13:20	1:06:41
Terminal 1	B16	0	0:00:00	0:00:00	6	0:06:58	0:41:51	0	0:00:00	0:00:00	4	0:13:13	0:52:55	0	0:00:00	0:00:00	10	0:09:28	1:34:46
Terminal 1	B17	0	0:00:00	0:00:00	3	0:07:03	0:21:10	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:07:03	0:21:10
Terminal 1	B18	0	0:00:00	0:00:00	3	0:07:25	0:22:15	1	0:11:29	0:11:29	1	0:14:21	0:14:21	0	0:00:00	0:00:00	5	0:09:37	0:48:05
Terminal 1	B19	0	0:00:00	0:00:00	3	0:07:10	0:21:30	0	0:00:00	0:00:00	1	0:14:20	0:14:20	0	0:00:00	0:00:00	4	0:08:57	0:35:50
Terminal 1	B2	0	0:00:00	0:00:00	2	0:08:50	0:17:40	1	0:09:14	0:09:14	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:08:58	0:26:54
Terminal 1	B20	0	0:00:00	0:00:00	5	0:07:07	0:35:37	0	0:00:00	0:00:00	1	0:14:00	0:14:00	0	0:00:00	0:00:00	6	0:08:16	0:49:37
Terminal 1	B21	0	0:00:00	0:00:00	2	0:07:52	0:15:45	3	0:11:59	0:35:59	2	0:14:03	0:28:07	0	0:00:00	0:00:00	7	0:11:24	1:19:51
Terminal 1	B22	0	0:00:00	0:00:00	2	0:07:40	0:15:21	2	0:11:53	0:23:47	1	0:13:44	0:13:44	0	0:00:00	0:00:00	5	0:10:34	0:52:52
Terminal 1	B3	0	0:00:00	0:00:00	3	0:08:46	0:26:20	1	0:09:17	0:09:17	1	0:11:11	0:11:11	0	0:00:00	0:00:00	5	0:09:21	0:46:48
Terminal 1	B4	0	0:00:00	0:00:00	5	0:09:07	0:45:38	3	0:09:13	0:27:40	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:09:09	1:13:18
Terminal 1	B5	0	0:00:00	0:00:00	4	0:09:03	0:36:15	2	0:10:45	0:21:30	2	0:12:30	0:25:01	0	0:00:00	0:00:00	8	0:10:20	1:22:46
Terminal 1	B6	0	0:00:00	0:00:00	2	0:09:04	0:18:08	2	0:10:06	0:20:13	4	0:12:58	0:51:55	0	0:00:00	0:00:00	8	0:11:17	1:30:16
Terminal 1	B7	0	0:00:00	0:00:00	3	0:09:47	0:29:23	3	0:10:46	0:32:19	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:10:17	1:01:42
Terminal 1	B8	0	0:00:00	0:00:00	4	0:09:30	0:38:03	3	0:11:23	0:34:10	1	0:13:26	0:13:26	0	0:00:00	0:00:00	8	0:10:42	1:25:39
Terminal 1	B9	0	0:00:00	0:00:00	3	0:10:13	0:30:39	1	0:12:02	0:12:02	3	0:13:20	0:40:02	0	0:00:00	0:00:00	7	0:11:49	1:22:43
Terminal 1	C1	0	0:00:00	0:00:00	4	0:06:52	0:27:30	6	0:08:21	0:50:08	2	0:11:11	0:22:23	0	0:00:00	0:00:00	12	0:08:20	1:40:01
Terminal 1	C10	0	0:00:00	0:00:00	4	0:07:23	0:29:33	1	0:09:30	0:09:30	3	0:12:02	0:36:08	0	0:00:00	0:00:00	8	0:09:23	1:15:11
Terminal 1	C11	0	0:00:00	0:00:00	4	0:09:03	0:36:15	4	0:09:26	0:37:44	5	0:12:32	1:02:44	0	0:00:00	0:00:00	13	0:10:31	2:16:43
Terminal 1	C12	0	0:00:00	0:00:00	3	0:07:00	0:21:01	2	0:09:33	0:19:07	3	0:11:39	0:34:59	0	0:00:00	0:00:00	8	0:09:23	1:15:07
Terminal 1	C15	0	0:00:00	0:00:00	3	0:09:54	0:29:43	1	0:10:28	0:10:28	1	0:13:20	0:13:20	0	0:00:00	0:00:00	5	0:10:42	0:53:31
Terminal 1	C16	0	0:00:00	0:00:00	1	0:05:49	0:05:49	0	0:00:00	0:00:00	3	0:11:10	0:33:32	0	0:00:00	0:00:00	4	0:09:50	0:39:21
Terminal 1	C17	0	0:00:00	0:00:00	4	0:09:53	0:39:33	1	0:11:35	0:11:35	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:10:13	0:51:08
Terminal 1	C18	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:10:07	0:10:07	1	0:11:43	0:11:43	0	0:00:00	0:00:00	2	0:10:55	0:21:50
Terminal 1	C19	0	0:00:00	0:00:00	4	0:09:40	0:38:42	1	0:11:44	0:11:44	5	0:13:09	1:05:49	0	0:00:00	0:00:00	10	0:11:37	1:56:15
Terminal 1	C2	0	0:00:00	0:00:00	5	0:06:47	0:33:59	5	0:10:09	0:50:45	2	0:11:02	0:22:05	0	0:00:00	0:00:00	12	0:08:54	1:46:49
Terminal 1	C20	0	0:00:00	0:00:00	2	0:06:42	0:13:25	3	0:10:21	0:31:05	1	0:12:49	0:12:49	0	0:00:00	0:00:00	6	0:09:33	0:57:19
Terminal 1	C21	0	0:00:00	0:00:00	3	0:09:59	0:29:58	6	0:10:55	1:05:31	1	0:13:35	0:13:35	0	0:00:00	0:00:00	10	0:10:54	1:49:04
Terminal 1	C22	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:10:10	0:40:41	3	0:12:43	0:38:11	0	0:00:00	0:00:00	7	0:11:16	1:18:52
Terminal 1	C23	0	0:00:00	0:00:00	4	0:10:39	0:42:36	6	0:11:31	1:09:08	1	0:13:00	0:13:00	0	0:00:00	0:00:00	11	0:11:20	2:04:44
Terminal 1	C24	0	0:00:00	0:00:00	5	0:06:35	0:32:57	0	0:00:00	0:00:00	4	0:12:37	0:50:28	0	0:00:00	0:00:00	9	0:09:16	1:23:25
Terminal 1	C25	0	0:00:00	0:00:00	5	0:10:42	0:53:33	3	0:11:01	0:33:05	3	0:13:35	0:40:47	0	0:00:00	0:00:00	11	0:11:35	2:07:25
Terminal 1	C26	0	0:00:00	0:00:00	7	0:06:09	0:43:08	1	0:10:06	0:10:06	2	0:12:26	0:24:53	0	0:00:00	0:00:00	10	0:07:48	1:18:07
Terminal 1	C27	0	0:00:00	0:00:00	5	0:10:13	0:51:09	3	0:11:36	0:34:48	1	0:14:04	0:14:04	0	0:00:00	0:00:00	9	0:11:06	1:40:01
Terminal 1	C28	0	0:00:00	0:00:00	2	0:06:35	0:13:11	7	0:10:43	1:15:05	1	0:13:07	0:13:07	0	0:00:00	0:00:00	10	0:10:08	1:41:23
Terminal 1	C29	0	0:00:00	0:00:00	4	0:07:27	0:29:49	3	0:10:50	0:32:30	2	0:14:02	0:28:05	0	0:00:00	0:00:00	9	0:10:02	1:30:24

TERMINAL	GATE	9 #	9 AVG	9 TOTAL	09R #	09R AVG	09R TOTAL	10L #	10L AVG	10L TOTAL	10R #	10R AVG	10R TOTAL	10 #	10 AVG	10 TOTAL	ALL RUNWAYS #	ALL RUNWAYS AVG	ALL RUNWAYS TOTAL
Terminal 1	C3	0	0:00:00	0:00:00	4	0:07:59	0:31:57	5	0:09:11	0:45:56	4	0:11:48	0:47:15	0	0:00:00	0:00:00	13	0:09:37	2:05:08
Terminal 1	C30	0	0:00:00	0:00:00	4	0:06:41	0:26:47	4	0:10:20	0:41:20	2	0:13:14	0:26:28	0	0:00:00	0:00:00	10	0:09:27	1:34:35
Terminal 1	C31	0	0:00:00	0:00:00	7	0:06:55	0:48:31	3	0:11:11	0:33:35	1	0:13:40	0:13:40	0	0:00:00	0:00:00	11	0:08:42	1:35:46
Terminal 1	C32	0	0:00:00	0:00:00	6	0:06:48	0:40:49	1	0:09:39	0:09:39	1	0:13:31	0:13:31	0	0:00:00	0:00:00	8	0:07:59	1:03:59
Terminal 1	C4	0	0:00:00	0:00:00	3	0:06:19	0:18:57	4	0:08:52	0:35:30	4	0:11:22	0:45:29	0	0:00:00	0:00:00	11	0:09:05	1:39:56
Terminal 1	C5	0	0:00:00	0:00:00	8	0:08:18	1:06:26	0	0:00:00	0:00:00	2	0:11:40	0:23:21	0	0:00:00	0:00:00	10	0:08:58	1:29:47
Terminal 1	C6	0	0:00:00	0:00:00	6	0:07:09	0:42:55	5	0:09:23	0:46:58	1	0:12:01	0:12:01	0	0:00:00	0:00:00	12	0:08:29	1:41:54
Terminal 1	C7	0	0:00:00	0:00:00	1	0:08:46	0:08:46	2	0:09:28	0:18:56	3	0:12:13	0:36:39	0	0:00:00	0:00:00	6	0:10:43	1:04:21
Terminal 1	C8	0	0:00:00	0:00:00	3	0:06:49	0:20:27	5	0:09:58	0:49:50	2	0:12:19	0:24:38	0	0:00:00	0:00:00	10	0:09:29	1:34:55
Terminal 1	C9	0	0:00:00	0:00:00	3	0:09:14	0:27:44	3	0:09:38	0:28:56	3	0:12:32	0:37:36	0	0:00:00	0:00:00	9	0:10:28	1:34:16
Terminal 2	E1	0	0:00:00	0:00:00	4	0:09:26	0:37:44	0	0:00:00	0:00:00	1	0:12:51	0:12:51	0	0:00:00	0:00:00	5	0:10:07	0:50:35
Terminal 2	E10	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:07:50	0:47:04	1	0:10:45	0:10:45	0	0:00:00	0:00:00	7	0:08:15	0:57:49
Terminal 2	E11	0	0:00:00	0:00:00	3	0:08:21	0:25:04	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:08:21	0:25:04
Terminal 2	E12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:08:10	0:57:15	1	0:10:34	0:10:34	0	0:00:00	0:00:00	8	0:08:28	1:07:49
Terminal 2	E13	0	0:00:00	0:00:00	3	0:08:25	0:25:15	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:08:25	0:25:15
Terminal 2	E14	0	0:00:00	0:00:00	2	0:07:48	0:15:36	3	0:09:35	0:28:46	3	0:11:13	0:33:39	0	0:00:00	0:00:00	8	0:09:45	1:18:01
Terminal 2	E15	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:08:38	0:25:55	3	0:11:26	0:34:19	0	0:00:00	0:00:00	6	0:10:02	1:00:14
Terminal 2	E2	0	0:00:00	0:00:00	3	0:09:03	0:27:10	2	0:10:12	0:20:25	1	0:12:29	0:12:29	0	0:00:00	0:00:00	6	0:10:00	1:00:04
Terminal 2	E2A	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:09:45	0:19:30	3	0:12:37	0:37:52	0	0:00:00	0:00:00	5	0:11:28	0:57:22
Terminal 2	E3	0	0:00:00	0:00:00	2	0:08:57	0:17:55	1	0:09:29	0:09:29	3	0:12:23	0:37:09	0	0:00:00	0:00:00	6	0:10:45	1:04:33
Terminal 2	E4	0	0:00:00	0:00:00	1	0:08:44	0:08:44	3	0:09:24	0:28:13	1	0:12:09	0:12:09	0	0:00:00	0:00:00	5	0:09:49	0:49:06
Terminal 2	E6	0	0:00:00	0:00:00	1	0:08:34	0:08:34	3	0:09:06	0:27:19	1	0:11:59	0:11:59	0	0:00:00	0:00:00	5	0:09:34	0:47:52
Terminal 2	E7	0	0:00:00	0:00:00	7	0:08:41	1:00:47	1	0:09:32	0:09:32	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:08:47	1:10:19
Terminal 2	E8	0	0:00:00	0:00:00	1	0:08:24	0:08:24	1	0:08:57	0:08:57	1	0:11:49	0:11:49	0	0:00:00	0:00:00	3	0:09:43	0:29:10
Terminal 2	E9	0	0:00:00	0:00:00	7	0:08:37	1:00:24	3	0:08:17	0:24:52	0	0:00:00	0:00:00	0	0:00:00	0:00:00	10	0:08:31	1:25:16
Terminal 2	F10	0	0:00:00	0:00:00	1	0:08:44	0:08:44	1	0:08:32	0:08:32	1	0:12:08	0:12:08	0	0:00:00	0:00:00	3	0:09:48	0:29:24
Terminal 2	F11	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:12:13	0:48:54	0	0:00:00	0:00:00	4	0:12:13	0:48:54
Terminal 2	F12	0	0:00:00	0:00:00	1	0:07:46	0:07:46	4	0:08:15	0:33:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:08:09	0:40:46
Terminal 2	F14	0	0:00:00	0:00:00	3	0:07:17	0:21:53	1	0:08:24	0:08:24	2	0:11:34	0:23:09	0	0:00:00	0:00:00	6	0:08:54	0:53:26
Terminal 2	F1A	0	0:00:00	0:00:00	2	0:07:57	0:15:54	5	0:06:05	0:30:25	3	0:11:24	0:34:13	0	0:00:00	0:00:00	10	0:08:03	1:20:32
Terminal 2	F1B	0	0:00:00	0:00:00	5	0:07:49	0:39:05	6	0:06:09	0:36:54	1	0:11:18	0:11:18	0	0:00:00	0:00:00	12	0:07:16	1:27:17
Terminal 2	F1C	0	0:00:00	0:00:00	4	0:07:44	0:30:59	5	0:05:44	0:28:44	3	0:11:05	0:33:15	0	0:00:00	0:00:00	12	0:07:44	1:32:58
Terminal 2	F2A	0	0:00:00	0:00:00	3	0:08:13	0:24:39	7	0:06:31	0:45:41	1	0:11:21	0:11:21	0	0:00:00	0:00:00	11	0:07:25	1:21:41
Terminal 2	F2B	0	0:00:00	0:00:00	2	0:07:45	0:15:30	4	0:06:30	0:26:01	3	0:11:13	0:33:39	0	0:00:00	0:00:00	9	0:08:21	1:15:10
Terminal 2	F2C	0	0:00:00	0:00:00	3	0:07:35	0:22:46	3	0:06:07	0:18:23	3	0:11:02	0:33:07	0	0:00:00	0:00:00	9	0:08:15	1:14:16
Terminal 2	F2D	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:05:32	0:05:32	1	0:10:51	0:10:51	0	0:00:00	0:00:00	2	0:08:11	0:16:23
Terminal 2	F3A	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:06:18	0:31:33	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:06:18	0:31:33
Terminal 2	F3B	0	0:00:00	0:00:00	4	0:07:35	0:30:20	4	0:06:01	0:24:04	1	0:11:03	0:11:03	0	0:00:00	0:00:00	9	0:07:16	1:05:27
Terminal 2	F3C	0	0:00:00	0:00:00	5	0:07:23	0:36:57	1	0:05:32	0:05:32	2	0:10:52	0:21:45	0	0:00:00	0:00:00	8	0:08:01	1:04:14
Terminal 2	F3D	0	0:00:00	0:00:00	3	0:07:17	0:21:51	5	0:05:54	0:29:34	2	0:10:43	0:21:26	0	0:00:00	0:00:00	10	0:07:17	1:12:51
Terminal 2	F4	0	0:00:00	0:00:00	3	0:08:48	0:26:26	5	0:07:41	0:38:27	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:08:06	1:04:53
Terminal 2	F5	0	0:00:00	0:00:00	5	0:08:26	0:42:10	4	0:06:52	0:27:30	0	0:00:00	0:00:00	0	0:00:00	0:00:00	9	0:07:44	1:09:40
Terminal 2	F6	0	0:00:00	0:00:00	2	0:07:49	0:15:39	3	0:08:28	0:25:25	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:08:12	0:41:04
Terminal 2	F7	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:06:26	0:06:26	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:06:26	0:06:26
Terminal 2	F8	0	0:00:00	0:00:00	2	0:07:54	0:15:49	3	0:08:30	0:25:32	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:08:16	0:41:21
Terminal 2	F9	0	0:00:00	0:00:00	1	0:09:08	0:09:08	1	0:07:18	0:07:18	2	0:12:36	0:25:12	0	0:00:00	0:00:00	4	0:10:24	0:41:38
South Cargo	FE-1	0	0:00:00	0:00:00	0	0:00:00	0:00:00	12	0:08:36	1:43:19	0	0:00:00	0:00:00	0	0:00:00	0:00:00	12	0:08:36	1:43:19
South Cargo	FE-10	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:09:16	0:37:04	0	0:00:00	0:00:00	1	0:07:45	0:07:45	5	0:08:57	0:44:49

		9			09R			10L			10R			10			ALL RUNWAYS		
TERMINAL	GATE	#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL	#	AVG	TOTAL
South Cargo	FE-11	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:08:43	0:34:55	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:08:43	0:34:55
South Cargo	FE-2	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:07:24	0:29:37	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:07:24	0:29:37
South Cargo	FE-3	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:09:01	0:45:09	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:09:01	0:45:09
South Cargo	FE-4	0	0:00:00	0:00:00	1	0:15:12	0:15:12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:15:12	0:15:12
Terminal 3	G10	0	0:00:00	0:00:00	1	0:08:47	0:08:47	2	0:06:55	0:13:50	2	0:12:27	0:24:54	0	0:00:00	0:00:00	5	0:09:30	0:47:31
Terminal 3	G11	0	0:00:00	0:00:00	5	0:08:59	0:44:55	4	0:07:19	0:29:16	2	0:12:33	0:25:06	0	0:00:00	0:00:00	11	0:09:01	1:39:17
Terminal 3	G12	0	0:00:00	0:00:00	6	0:08:36	0:51:39	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:08:36	0:51:39
Terminal 3	G14	0	0:00:00	0:00:00	3	0:08:25	0:25:16	6	0:06:52	0:41:14	0	0:00:00	0:00:00	0	0:00:00	0:00:00	9	0:07:23	1:06:30
Terminal 3	G14A	0	0:00:00	0:00:00	3	0:08:16	0:24:48	5	0:06:17	0:31:28	1	0:11:38	0:11:38	0	0:00:00	0:00:00	9	0:07:32	1:07:54
Terminal 3	G15	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:07:05	0:14:10	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:07:05	0:14:10
Terminal 3	G16	0	0:00:00	0:00:00	2	0:08:05	0:16:10	3	0:06:13	0:18:40	1	0:11:33	0:11:33	0	0:00:00	0:00:00	6	0:07:43	0:46:23
Terminal 3	G17	0	0:00:00	0:00:00	4	0:08:45	0:35:03	3	0:07:01	0:21:04	1	0:12:34	0:12:34	0	0:00:00	0:00:00	8	0:08:35	1:08:41
Terminal 3	G18	0	0:00:00	0:00:00	2	0:07:52	0:15:45	3	0:07:23	0:22:11	2	0:11:19	0:22:39	0	0:00:00	0:00:00	7	0:08:39	1:00:35
Terminal 3	G19	0	0:00:00	0:00:00	2	0:08:38	0:17:17	1	0:06:46	0:06:46	1	0:12:12	0:12:12	0	0:00:00	0:00:00	4	0:09:03	0:36:15
Terminal 3	G19A	0	0:00:00	0:00:00	9	0:08:43	1:18:32	2	0:06:51	0:13:43	1	0:11:59	0:11:59	0	0:00:00	0:00:00	12	0:08:41	1:44:14
Terminal 3	G1A	0	0:00:00	0:00:00	2	0:09:54	0:19:48	4	0:08:44	0:34:57	2	0:13:08	0:26:17	0	0:00:00	0:00:00	8	0:10:07	1:21:02
Terminal 3	G1B	0	0:00:00	0:00:00	3	0:09:50	0:29:30	4	0:08:19	0:33:17	1	0:13:32	0:13:32	0	0:00:00	0:00:00	8	0:09:32	1:16:19
Terminal 3	G20	0	0:00:00	0:00:00	3	0:07:53	0:23:41	5	0:06:35	0:32:57	2	0:11:34	0:23:08	0	0:00:00	0:00:00	10	0:07:58	1:19:46
Terminal 3	G21	0	0:00:00	0:00:00	3	0:08:27	0:25:22	3	0:06:27	0:19:23	2	0:11:35	0:23:11	0	0:00:00	0:00:00	8	0:08:29	1:07:56
Terminal 3	G2A	0	0:00:00	0:00:00	4	0:09:22	0:37:31	4	0:08:06	0:32:27	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:08:44	1:09:58
Terminal 3	G2B	0	0:00:00	0:00:00	2	0:09:04	0:18:08	4	0:07:30	0:30:00	1	0:12:57	0:12:57	0	0:00:00	0:00:00	7	0:08:43	1:01:05
Terminal 3	G3	0	0:00:00	0:00:00	1	0:09:32	0:09:32	3	0:08:07	0:24:23	1	0:13:00	0:13:00	0	0:00:00	0:00:00	5	0:09:23	0:46:55
Terminal 3	G4	0	0:00:00	0:00:00	4	0:09:08	0:36:33	2	0:08:05	0:16:11	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:08:47	0:52:44
Terminal 3	G5	0	0:00:00	0:00:00	5	0:09:15	0:46:15	3	0:08:24	0:25:12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:08:55	1:11:27
Terminal 3	G6	0	0:00:00	0:00:00	1	0:08:59	0:08:59	2	0:07:57	0:15:55	3	0:12:34	0:37:44	0	0:00:00	0:00:00	6	0:10:26	1:02:38
Terminal 3	G7	0	0:00:00	0:00:00	4	0:09:04	0:36:19	2	0:07:35	0:15:11	1	0:12:57	0:12:57	0	0:00:00	0:00:00	7	0:09:12	1:04:27
Terminal 3	G8	0	0:00:00	0:00:00	3	0:09:01	0:27:05	4	0:07:23	0:29:33	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:08:05	0:56:38
Terminal 3	G9	0	0:00:00	0:00:00	2	0:08:58	0:17:57	3	0:07:26	0:22:18	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:08:03	0:40:15
General Aviation	GA1	0	0:00:00	0:00:00	4	0:13:52	0:55:30	9	0:19:30	2:55:37	3	0:21:43	1:05:09	0	0:00:00	0:00:00	16	0:18:31	4:56:16
General Aviation	GA10	0	0:00:00	0:00:00	3	0:16:06	0:48:19	3	0:18:17	0:54:53	6	0:21:59	2:11:59	0	0:00:00	0:00:00	12	0:19:35	3:55:11
General Aviation	GA11	0	0:00:00	0:00:00	2	0:14:21	0:28:42	3	0:18:26	0:55:18	5	0:22:10	1:50:52	0	0:00:00	0:00:00	10	0:19:29	3:14:52
General Aviation	GA12	0	0:00:00	0:00:00	2	0:17:37	0:35:14	2	0:19:48	0:39:36	2	0:22:18	0:44:37	0	0:00:00	0:00:00	6	0:19:54	1:59:27
General Aviation	GA13	0	0:00:00	0:00:00	1	0:14:45	0:14:45	0	0:00:00	0:00:00	2	0:22:46	0:45:32	0	0:00:00	0:00:00	3	0:20:05	1:00:17
General Aviation	GA14	0	0:00:00	0:00:00	2	0:14:52	0:29:45	1	0:21:17	0:21:17	1	0:22:56	0:22:56	0	0:00:00	0:00:00	4	0:18:29	1:13:58
General Aviation	GA3	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:17:25	0:17:25	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:17:25	0:17:25
Terminal 3	H1	0	0:00:00	0:00:00	8	0:10:46	1:26:10	5	0:09:44	0:48:41	4	0:14:09	0:56:36	0	0:00:00	0:00:00	17	0:11:15	3:11:27
Terminal 3	H10	0	0:00:00	0:00:00	7	0:10:13	1:11:32	5	0:08:31	0:42:37	1	0:13:36	0:13:36	0	0:00:00	0:00:00	13	0:09:49	2:07:45
Terminal 3	H11A	0	0:00:00	0:00:00	5	0:10:52	0:54:21	5	0:09:20	0:46:41	2	0:13:49	0:27:38	0	0:00:00	0:00:00	12	0:10:43	2:08:40
Terminal 3	H11B	0	0:00:00	0:00:00	7	0:10:13	1:11:34	4	0:10:03	0:40:12	2	0:13:39	0:27:19	0	0:00:00	0:00:00	13	0:10:41	2:19:05
Terminal 3	H12	0	0:00:00	0:00:00	3	0:09:56	0:29:50	5	0:08:53	0:44:29	3	0:13:23	0:40:09	0	0:00:00	0:00:00	11	0:10:24	1:54:28
Terminal 3	H13	0	0:00:00	0:00:00	4	0:10:06	0:40:26	3	0:08:02	0:24:07	2	0:13:34	0:27:09	0	0:00:00	0:00:00	9	0:10:11	1:31:42
Terminal 3	H14	0	0:00:00	0:00:00	5	0:09:43	0:48:36	1	0:07:27	0:07:27	2	0:13:03	0:26:07	0	0:00:00	0:00:00	8	0:10:16	1:22:10
Terminal 3	H15	0	0:00:00	0:00:00	3	0:09:44	0:29:12	2	0:07:38	0:15:17	4	0:13:09	0:52:36	0	0:00:00	0:00:00	9	0:10:47	1:37:05
Terminal 3	H16	0	0:00:00	0:00:00	4	0:09:11	0:36:45	3	0:07:07	0:21:21	3	0:12:28	0:37:26	0	0:00:00	0:00:00	10	0:09:33	1:35:32
Terminal 3	H17	0	0:00:00	0:00:00	2	0:09:39	0:19:19	3	0:07:35	0:22:47	4	0:13:04	0:52:19	0	0:00:00	0:00:00	9	0:10:29	1:34:25
Terminal 3	H18	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:07:19	0:14:39	4	0:12:49	0:51:16	0	0:00:00	0:00:00	6	0:10:59	1:05:55
Terminal 3	H2	0	0:00:00	0:00:00	5	0:10:48	0:54:04	4	0:09:30	0:38:00	3	0:14:14	0:42:43	0	0:00:00	0:00:00	12	0:11:13	2:14:47
Terminal 3	H3	0	0:00:00	0:00:00	1	0:11:05	0:11:05	7	0:09:01	1:03:11	2	0:14:20	0:28:41	0	0:00:00	0:00:00	10	0:10:17	1:42:57

TERMINAL	GATE	9 #	9 AVG	9 TOTAL	09R #	09R AVG	09R TOTAL	10L #	10L AVG	10L TOTAL	10R #	10R AVG	10R TOTAL	10 #	10 AVG	10 TOTAL	ALL RUNWAYS #	ALL RUNWAYS AVG	ALL RUNWAYS TOTAL
Terminal 3	H4	0	0:00:00	0:00:00	3	0:10:39	0:31:57	4	0:08:54	0:35:39	3	0:14:10	0:42:30	0	0:00:00	0:00:00	10	0:11:00	1:50:06
Terminal 3	H5	0	0:00:00	0:00:00	2	0:10:38	0:21:16	4	0:09:54	0:39:39	4	0:13:56	0:55:46	0	0:00:00	0:00:00	10	0:11:40	1:56:41
Terminal 3	H6	0	0:00:00	0:00:00	1	0:10:19	0:10:19	4	0:08:27	0:33:49	4	0:13:51	0:55:24	0	0:00:00	0:00:00	9	0:11:03	1:39:32
Terminal 3	H8	0	0:00:00	0:00:00	3	0:10:17	0:30:51	2	0:08:00	0:16:01	4	0:13:43	0:54:53	0	0:00:00	0:00:00	9	0:11:18	1:41:45
Terminal 3	H9	0	0:00:00	0:00:00	1	0:10:36	0:10:36	5	0:09:19	0:46:36	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:09:32	0:57:12
Terminal 5/6	M1	0	0:00:00	0:00:00	2	0:12:18	0:24:37	4	0:11:47	0:47:10	1	0:15:19	0:15:19	0	0:00:00	0:00:00	7	0:12:26	1:27:06
Terminal 5/6	M10	0	0:00:00	0:00:00	1	0:10:44	0:10:44	1	0:10:50	0:10:50	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:10:47	0:21:34
Terminal 5/6	M11	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:09:24	0:09:24	1	0:15:45	0:15:45	0	0:00:00	0:00:00	2	0:12:34	0:25:09
Terminal 5/6	M12	0	0:00:00	0:00:00	2	0:11:17	0:22:35	1	0:13:49	0:13:49	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:12:08	0:36:24
Terminal 5/6	M13	0	0:00:00	0:00:00	1	0:11:50	0:11:50	0	0:00:00	0:00:00	1	0:15:30	0:15:30	0	0:00:00	0:00:00	2	0:13:40	0:27:20
Terminal 5/6	M15	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:10:14	0:10:14	1	0:15:39	0:15:39	1	0:14:04	0:14:04	3	0:13:19	0:39:57
Terminal 5/6	M16	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:14:55	0:14:55	1	0:14:55	0:14:55
Terminal 5/6	M17	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:14:09	0:14:09	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:14:09	0:14:09
Terminal 5/6	M18	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:11:24	0:22:48	3	0:16:01	0:48:04	0	0:00:00	0:00:00	5	0:14:10	1:10:52
Terminal 5/6	M19	0	0:00:00	0:00:00	1	0:11:32	0:11:32	0	0:00:00	0:00:00	1	0:16:35	0:16:35	0	0:00:00	0:00:00	2	0:14:03	0:28:07
Terminal 5/6	M2	0	0:00:00	0:00:00	1	0:12:08	0:12:08	0	0:00:00	0:00:00	1	0:15:30	0:15:30	0	0:00:00	0:00:00	2	0:13:49	0:27:38
Terminal 5/6	M20	0	0:00:00	0:00:00	1	0:12:14	0:12:14	2	0:12:10	0:24:20	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:12:11	0:36:34
Terminal 5/6	M21	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:12:27	0:12:27	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:12:27	0:12:27
Terminal 5/6	M22	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:15:14	0:30:28	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:15:14	0:30:28
Terminal 5/6	M24	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:18:00	0:18:00	0	0:00:00	0:00:00	1	0:18:00	0:18:00
Terminal 5/6	M25	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:15:16	0:15:16	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:15:16	0:15:16
Terminal 5/6	M26	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:13:11	0:39:33	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:13:11	0:39:33
Terminal 5/6	M27	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:13:18	0:39:55	1	0:18:41	0:18:41	0	0:00:00	0:00:00	4	0:14:39	0:58:36
Terminal 5/6	M28	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:13:43	0:41:09	1	0:19:04	0:19:04	0	0:00:00	0:00:00	4	0:15:03	1:00:13
Terminal 5/6	M29	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:13:10	0:26:21	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:13:10	0:26:21
Terminal 5/6	M3	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:10:14	0:10:14	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:10:14	0:10:14
Terminal 5/6	M30	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:13:20	1:20:03	2	0:18:43	0:37:26	0	0:00:00	0:00:00	8	0:14:41	1:57:29
Terminal 5/6	M31	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:14:27	1:12:15	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:14:27	1:12:15
Terminal 5/6	M32	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:14:41	1:13:28	1	0:20:13	0:20:13	0	0:00:00	0:00:00	6	0:15:36	1:33:41
Terminal 5/6	M33	0	0:00:00	0:00:00	1	0:17:03	0:17:03	3	0:15:11	0:45:35	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:15:39	1:02:38
Terminal 5/6	M34	0	0:00:00	0:00:00	1	0:17:32	0:17:32	5	0:14:51	1:14:17	2	0:20:57	0:41:54	0	0:00:00	0:00:00	8	0:16:42	2:13:43
Terminal 5/6	M4	0	0:00:00	0:00:00	2	0:11:28	0:22:56	3	0:12:16	0:36:49	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:11:57	0:59:45
Terminal 5/6	M5	0	0:00:00	0:00:00	2	0:10:46	0:21:32	1	0:11:30	0:11:30	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:11:00	0:33:02
Terminal 5/6	M7	0	0:00:00	0:00:00	1	0:11:03	0:11:03	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:11:03	0:11:03
Terminal 5/6	M8	0	0:00:00	0:00:00	2	0:11:03	0:22:06	1	0:13:43	0:13:43	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:11:56	0:35:49
Terminal 5/6	M9	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:11:06	0:11:06	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:11:06	0:11:06
Terminal 7	JET-1	0	0:00:00	0:00:00	6	0:16:48	1:40:49	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:16:48	1:40:49
Terminal 7	JET-10	0	0:00:00	0:00:00	2	0:16:24	0:32:48	3	0:09:11	0:27:35	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:12:04	1:00:23
Terminal 7	JET-11	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:09:24	0:09:24	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:09:24	0:09:24
Terminal 7	JET-12	0	0:00:00	0:00:00	1	0:16:47	0:16:47	1	0:08:58	0:08:58	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:12:52	0:25:45
Terminal 7	JET-13	0	0:00:00	0:00:00	3	0:10:07	0:30:21	5	0:07:46	0:38:50	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:08:38	1:09:11
Terminal 7	JET-14	0	0:00:00	0:00:00	5	0:10:14	0:51:12	4	0:07:43	0:30:52	2	0:07:17	0:14:35	0	0:00:00	0:00:00	11	0:08:47	1:36:39
Terminal 7	JET-15	0	0:00:00	0:00:00	3	0:09:58	0:29:56	6	0:07:22	0:44:17	1	0:07:15	0:07:15	0	0:00:00	0:00:00	10	0:08:08	1:21:28
Terminal 7	JET-16	0	0:00:00	0:00:00	1	0:09:44	0:09:44	4	0:07:55	0:31:43	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:08:17	0:41:27
Terminal 7	JET-19	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:10:14	0:10:14	0	0:00:00	0:00:00	1	0:10:14	0:10:14
Terminal 7	JET-2	0	0:00:00	0:00:00	2	0:06:30	0:13:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:06:30	0:13:00
Terminal 7	JET-21	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:12:36	0:12:36	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:12:36	0:12:36
Terminal 7	JET-29	0	0:00:00	0:00:00	1	0:13:03	0:13:03	0	0:00:00	0:00:00	1	0:07:57	0:07:57	0	0:00:00	0:00:00	2	0:10:30	0:21:00

TERMINAL	GATE	9 #	9 AVG	9 TOTAL	09R #	09R AVG	09R TOTAL	10L #	10L AVG	10L TOTAL	10R #	10R AVG	10R TOTAL	10 #	10 AVG	10 TOTAL	ALL RUNWAYS #	ALL RUNWAYS AVG	ALL RUNWAYS TOTAL
Terminal 7	JET-3	0	0:00:00	0:00:00	3	0:16:20	0:49:02	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:16:20	0:49:02
Terminal 7	JET-31	0	0:00:00	0:00:00	6	0:06:31	0:39:11	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:06:31	0:39:11
Terminal 7	JET-34	0	0:00:00	0:00:00	2	0:09:40	0:19:21	1	0:09:31	0:09:31	1	0:07:04	0:07:04	0	0:00:00	0:00:00	4	0:08:59	0:35:56
Terminal 7	JET-4	0	0:00:00	0:00:00	5	0:15:43	1:18:38	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:15:43	1:18:38
Terminal 7	JET-40	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:05:17	0:05:17	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:05:17	0:05:17
Terminal 7	JET-41	1	0:10:43	0:10:43	3	0:13:27	0:40:22	1	0:05:00	0:05:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:11:13	0:56:05
Terminal 7	JET-42	1	0:11:04	0:11:04	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:11:04	0:11:04
Terminal 7	JET-46	0	0:00:00	0:00:00	2	0:05:23	0:10:46	1	0:09:14	0:09:14	2	0:11:04	0:22:08	0	0:00:00	0:00:00	5	0:08:25	0:42:08
Terminal 7	JET-7	1	0:06:23	0:06:23	6	0:07:12	0:43:15	8	0:11:04	1:28:37	1	0:14:18	0:14:18	0	0:00:00	0:00:00	16	0:09:32	2:32:33
Terminal 7	JET-8	0	0:00:00	0:00:00	5	0:07:28	0:37:24	5	0:10:50	0:54:11	1	0:13:51	0:13:51	0	0:00:00	0:00:00	11	0:09:35	1:45:26
Terminal 7	JET-9	0	0:00:00	0:00:00	3	0:15:37	0:46:53	3	0:07:34	0:22:42	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:11:35	1:09:35
Terminal 3	K1	0	0:00:00	0:00:00	7	0:12:37	1:28:20	2	0:10:30	0:21:01	1	0:16:00	0:16:00	0	0:00:00	0:00:00	10	0:12:32	2:05:21
Terminal 3	K10	0	0:00:00	0:00:00	2	0:10:46	0:21:32	2	0:08:40	0:17:21	3	0:14:10	0:42:32	0	0:00:00	0:00:00	7	0:11:37	1:21:25
Terminal 3	K11	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:15:05	0:15:05	0	0:00:00	0:00:00	1	0:15:05	0:15:05
Terminal 3	K12	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:08:21	0:08:21	1	0:13:51	0:13:51	0	0:00:00	0:00:00	2	0:11:06	0:22:12
Terminal 3	K13	0	0:00:00	0:00:00	5	0:11:39	0:58:15	2	0:09:24	0:18:49	3	0:15:11	0:45:33	0	0:00:00	0:00:00	10	0:12:15	2:02:37
Terminal 3	K14	0	0:00:00	0:00:00	1	0:10:05	0:10:05	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:10:05	0:10:05
Terminal 3	K15	0	0:00:00	0:00:00	1	0:11:53	0:11:53	2	0:10:13	0:20:26	0	0:00:00	0:00:00	0	0:00:00	0:00:00	3	0:10:46	0:32:19
Terminal 3	K16	0	0:00:00	0:00:00	4	0:09:51	0:39:25	2	0:07:53	0:15:46	3	0:13:16	0:39:50	0	0:00:00	0:00:00	9	0:10:33	1:35:01
Terminal 3	K17	0	0:00:00	0:00:00	5	0:11:03	0:55:19	2	0:09:19	0:18:38	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:10:33	1:13:57
Terminal 3	K18	0	0:00:00	0:00:00	3	0:10:05	0:30:16	2	0:08:02	0:16:05	3	0:13:32	0:40:38	0	0:00:00	0:00:00	8	0:10:52	1:26:59
Terminal 3	K19	0	0:00:00	0:00:00	6	0:10:44	1:04:28	0	0:00:00	0:00:00	1	0:14:10	0:14:10	0	0:00:00	0:00:00	7	0:11:14	1:18:38
Terminal 3	K2	0	0:00:00	0:00:00	2	0:12:41	0:25:22	7	0:10:40	1:14:44	1	0:16:04	0:16:04	0	0:00:00	0:00:00	10	0:11:37	1:56:10
Terminal 3	K20	0	0:00:00	0:00:00	2	0:09:47	0:19:35	1	0:10:03	0:10:03	1	0:13:00	0:13:00	0	0:00:00	0:00:00	4	0:10:39	0:42:38
Terminal 3	K21	0	0:00:00	0:00:00	3	0:10:36	0:31:50	5	0:08:33	0:42:48	1	0:14:08	0:14:08	0	0:00:00	0:00:00	9	0:09:51	1:28:46
Terminal 3	K22	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:09:13	0:55:20	3	0:14:17	0:42:53	0	0:00:00	0:00:00	9	0:10:54	1:38:13
Terminal 3	K3	0	0:00:00	0:00:00	1	0:12:52	0:12:52	6	0:11:34	1:09:26	2	0:16:12	0:32:25	0	0:00:00	0:00:00	9	0:12:44	1:54:43
Terminal 3	K4	0	0:00:00	0:00:00	3	0:12:43	0:38:11	1	0:11:10	0:11:10	4	0:15:59	1:03:56	0	0:00:00	0:00:00	8	0:14:09	1:53:17
Terminal 3	K5	0	0:00:00	0:00:00	2	0:12:22	0:24:44	3	0:10:34	0:31:44	1	0:15:48	0:15:48	0	0:00:00	0:00:00	6	0:12:02	1:12:16
Terminal 3	K6A	0	0:00:00	0:00:00	1	0:10:43	0:10:43	3	0:08:47	0:26:22	2	0:14:08	0:28:16	0	0:00:00	0:00:00	6	0:10:53	1:05:21
Terminal 3	K6B	0	0:00:00	0:00:00	2	0:10:40	0:21:21	2	0:08:36	0:17:12	2	0:14:03	0:28:07	0	0:00:00	0:00:00	6	0:11:06	1:06:40
Terminal 3	K7	0	0:00:00	0:00:00	0	0:00:00	0:00:00	4	0:10:29	0:41:57	1	0:15:32	0:15:32	0	0:00:00	0:00:00	5	0:11:29	0:57:29
Terminal 3	K8	0	0:00:00	0:00:00	6	0:10:53	1:05:22	1	0:08:59	0:08:59	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:10:37	1:14:21
Terminal 3	K9	0	0:00:00	0:00:00	2	0:12:25	0:24:50	1	0:09:54	0:09:54	2	0:15:52	0:31:44	0	0:00:00	0:00:00	5	0:13:17	1:06:28
Terminal 3	L10	0	0:00:00	0:00:00	5	0:13:10	1:05:54	5	0:12:27	1:02:18	1	0:15:06	0:15:06	0	0:00:00	0:00:00	11	0:13:01	2:23:18
Terminal 3	L2	0	0:00:00	0:00:00	6	0:14:04	1:24:28	3	0:13:05	0:39:17	0	0:00:00	0:00:00	0	0:00:00	0:00:00	9	0:13:45	2:03:45
Terminal 3	L4	0	0:00:00	0:00:00	0	0:00:00	0:00:00	1	0:14:19	0:14:19	1	0:15:54	0:15:54	0	0:00:00	0:00:00	2	0:15:06	0:30:13
Terminal 3	L6	0	0:00:00	0:00:00	1	0:14:24	0:14:24	1	0:14:52	0:14:52	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:14:38	0:29:16
Terminal 3	L8	0	0:00:00	0:00:00	3	0:11:03	0:33:11	3	0:11:26	0:34:20	1	0:14:18	0:14:18	0	0:00:00	0:00:00	7	0:11:41	1:21:49
Terminal 7	RJ-1	0	0:00:00	0:00:00	1	0:06:54	0:06:54	6	0:09:41	0:58:06	1	0:08:51	0:08:51	0	0:00:00	0:00:00	8	0:09:13	1:13:51
Terminal 7	RJ-10	0	0:00:00	0:00:00	2	0:08:40	0:17:20	6	0:08:57	0:53:44	2	0:08:30	0:17:01	0	0:00:00	0:00:00	10	0:08:48	1:28:05
Terminal 7	RJ-11	0	0:00:00	0:00:00	1	0:05:37	0:05:37	5	0:09:11	0:45:56	2	0:09:58	0:19:57	0	0:00:00	0:00:00	8	0:08:56	1:11:30
Terminal 7	RJ-12	0	0:00:00	0:00:00	3	0:05:39	0:16:58	4	0:08:42	0:34:50	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:07:24	0:51:48
Terminal 7	RJ-13	0	0:00:00	0:00:00	1	0:05:54	0:05:54	4	0:09:28	0:37:55	2	0:09:31	0:19:02	0	0:00:00	0:00:00	7	0:08:58	1:02:51
Terminal 7	RJ-14	0	0:00:00	0:00:00	6	0:05:15	0:31:32	5	0:09:55	0:49:36	1	0:10:12	0:10:12	0	0:00:00	0:00:00	12	0:07:36	1:31:20
Terminal 7	RJ-15	0	0:00:00	0:00:00	3	0:05:28	0:16:24	5	0:08:25	0:42:07	2	0:09:24	0:18:48	0	0:00:00	0:00:00	10	0:07:43	1:17:19
Terminal 7	RJ-16	0	0:00:00	0:00:00	4	0:05:36	0:22:24	5	0:09:38	0:48:14	1	0:09:55	0:09:55	0	0:00:00	0:00:00	10	0:08:03	1:20:33
Terminal 7	RJ-17	0	0:00:00	0:00:00	4	0:07:06	0:28:27	3	0:10:03	0:30:10	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:08:22	0:58:37

TERMINAL	GATE	9 #	9 AVG	9 TOTAL	09R #	09R AVG	09R TOTAL	10L #	10L AVG	10L TOTAL	10R #	10R AVG	10R TOTAL	10 #	10 AVG	10 TOTAL	ALL RUNWAYS #	ALL RUNWAYS AVG	ALL RUNWAYS TOTAL
Terminal 7	RJ-18	0	0:00:00	0:00:00	6	0:05:19	0:31:55	2	0:09:02	0:18:04	2	0:09:40	0:19:21	0	0:00:00	0:00:00	10	0:06:56	1:09:20
Terminal 7	RJ-19	0	0:00:00	0:00:00	7	0:05:09	0:36:03	2	0:08:41	0:17:22	1	0:09:29	0:09:29	0	0:00:00	0:00:00	10	0:06:17	1:02:54
Terminal 7	RJ-2	0	0:00:00	0:00:00	7	0:07:13	0:50:35	3	0:09:17	0:27:52	0	0:00:00	0:00:00	0	0:00:00	0:00:00	10	0:07:50	1:18:27
Terminal 7	RJ-20	0	0:00:00	0:00:00	5	0:05:06	0:25:33	3	0:07:52	0:23:36	1	0:09:46	0:09:46	0	0:00:00	0:00:00	9	0:06:32	0:58:55
Terminal 7	RJ-23	0	0:00:00	0:00:00	1	0:05:27	0:05:27	5	0:10:22	0:51:53	0	0:00:00	0:00:00	0	0:00:00	0:00:00	6	0:09:33	0:57:20
Terminal 7	RJ-24	0	0:00:00	0:00:00	4	0:05:10	0:20:40	1	0:07:38	0:07:38	0	0:00:00	0:00:00	0	0:00:00	0:00:00	5	0:05:39	0:28:18
Terminal 7	RJ-25	0	0:00:00	0:00:00	6	0:04:58	0:29:51	2	0:07:41	0:15:23	0	0:00:00	0:00:00	0	0:00:00	0:00:00	8	0:05:39	0:45:14
Terminal 7	RJ-26	0	0:00:00	0:00:00	4	0:04:33	0:18:14	1	0:07:22	0:07:22	3	0:10:32	0:31:36	0	0:00:00	0:00:00	8	0:07:09	0:57:12
Terminal 7	RJ-3	0	0:00:00	0:00:00	7	0:07:55	0:55:29	4	0:09:24	0:37:36	0	0:00:00	0:00:00	0	0:00:00	0:00:00	11	0:08:27	1:33:05
Terminal 7	RJ-4	0	0:00:00	0:00:00	2	0:11:05	0:22:10	5	0:09:15	0:46:17	0	0:00:00	0:00:00	0	0:00:00	0:00:00	7	0:09:46	1:08:27
Terminal 7	RJ-5	0	0:00:00	0:00:00	2	0:05:50	0:11:40	5	0:08:08	0:40:41	1	0:08:39	0:08:39	0	0:00:00	0:00:00	8	0:07:37	1:01:00
Terminal 7	RJ-6	0	0:00:00	0:00:00	2	0:06:48	0:13:36	5	0:10:09	0:50:48	3	0:09:00	0:27:00	0	0:00:00	0:00:00	10	0:09:08	1:31:24
Terminal 7	RJ-7	0	0:00:00	0:00:00	2	0:09:07	0:18:14	6	0:11:31	1:09:06	2	0:08:52	0:17:44	0	0:00:00	0:00:00	10	0:10:30	1:45:04
Terminal 7	RJ-8	0	0:00:00	0:00:00	4	0:06:11	0:24:47	4	0:09:17	0:37:11	2	0:09:09	0:18:18	0	0:00:00	0:00:00	10	0:08:01	1:20:16
Terminal 7	RJ-9	0	0:00:00	0:00:00	6	0:06:59	0:41:57	3	0:08:52	0:26:38	1	0:09:00	0:09:00	0	0:00:00	0:00:00	10	0:07:45	1:17:35
Terminal 4	T4-13	0	0:00:00	0:00:00	3	0:10:08	0:30:25	0	0:00:00	0:00:00	1	0:15:09	0:15:09	0	0:00:00	0:00:00	4	0:11:23	0:45:34
Terminal 4	T4-5	0	0:00:00	0:00:00	2	0:10:18	0:20:36	0	0:00:00	0:00:00	0	0:00:00	0:00:00	0	0:00:00	0:00:00	2	0:10:18	0:20:36
	ALL GATES	3	0:09:23	0:28:10	663	0:09:08	101:05:56	684	0:09:36	109:35:54	334	0:13:19	74:12:31	3	0:12:14	0:36:44	1687	0:10:10	285:59:15

Table 6
TAAM Project Name: data/projects/taamKORD_EIS_EXP33.prj

Fleet Mix and Modeled Gates

Terminal	Gate	AC Type	Arrivals	Departures	Total
Terminal 1	B1	319	3	3	6
Terminal 1	B1	320	4	5	9
Terminal 1	B1	321	1	1	2
Terminal 1	B10	319	2	3	5
Terminal 1	B10	320	3	6	9
Terminal 1	B10	321	2	2	4
Terminal 1	B11	319	2	3	5
Terminal 1	B11	320	4	5	9
Terminal 1	B12	319	3	3	6
Terminal 1	B12	320	2	2	4
Terminal 1	B12	321	2	2	4
Terminal 1	B14	319	1	1	2
Terminal 1	B14	320	3	3	6
Terminal 1	B14	321	1	1	2
Terminal 1	B16	320	-	1	1
Terminal 1	B16	744	-	1	1
Terminal 1	B16	772	3	8	11
Terminal 1	B17	763	-	1	1
Terminal 1	B17	772	3	2	5
Terminal 1	B18	319	2	1	3
Terminal 1	B18	320	4	3	7
Terminal 1	B18	321	1	1	2
Terminal 1	B19	319	3	3	6
Terminal 1	B19	321	2	1	3
Terminal 1	B2	319	2	1	3
Terminal 1	B2	320	2	2	4
Terminal 1	B2	763	1	-	1
Terminal 1	B20	319	2	1	3
Terminal 1	B20	320	3	3	6
Terminal 1	B20	321	2	2	4
Terminal 1	B21	319	4	3	7
Terminal 1	B21	320	4	3	7

Terminal	Gate	AC Type	Arrivals	Departures	Total
Terminal 1	B21	321	1	1	2
Terminal 1	B22	319	3	2	5
Terminal 1	B22	320	2	2	4
Terminal 1	B22	321	1	1	2
Terminal 1	B3	319	2	2	4
Terminal 1	B3	320	3	2	5
Terminal 1	B3	321	1	1	2
Terminal 1	B4	319	5	5	10
Terminal 1	B4	320	3	3	6
Terminal 1	B5	319	3	3	6
Terminal 1	B5	320	2	2	4
Terminal 1	B5	321	3	3	6
Terminal 1	B6	319	4	4	8
Terminal 1	B6	320	3	3	6
Terminal 1	B6	321	1	1	2
Terminal 1	B7	319	3	3	6
Terminal 1	B7	320	3	3	6
Terminal 1	B8	319	5	4	9
Terminal 1	B8	320	2	2	4
Terminal 1	B8	321	2	2	4
Terminal 1	B9	319	4	4	8
Terminal 1	B9	320	2	2	4
Terminal 1	B9	321	1	1	2
Terminal 1	C1	319	7	6	13
Terminal 1	C1	320	5	5	10
Terminal 1	C1	321	1	1	2
Terminal 1	C10	319	5	5	10
Terminal 1	C10	320	2	2	4
Terminal 1	C10	321	1	1	2
Terminal 1	C11	319	5	5	10
Terminal 1	C11	320	4	6	10
Terminal 1	C11	321	2	2	4
Terminal 1	C12	319	1	1	2
Terminal 1	C12	320	2	4	6
Terminal 1	C12	321	4	3	7
Terminal 1	C15	319	3	2	5
Terminal 1	C15	320	3	3	6
Terminal 1	C16	772	3	4	7
Terminal 1	C17	319	4	4	8

Terminal	Gate	AC Type	Arrivals	Departures	Total
Terminal 1	C17	320	1	1	2
Terminal 1	C18	744	1	-	1
Terminal 1	C18	772	1	2	3
Terminal 1	C19	319	4	4	8
Terminal 1	C19	320	3	4	7
Terminal 1	C19	321	2	2	4
Terminal 1	C2	319	6	6	12
Terminal 1	C2	320	5	5	10
Terminal 1	C2	321	1	1	2
Terminal 1	C20	319	1	2	3
Terminal 1	C20	320	4	4	8
Terminal 1	C21	319	6	7	13
Terminal 1	C21	320	3	2	5
Terminal 1	C21	321	1	1	2
Terminal 1	C22	319	2	2	4
Terminal 1	C22	320	5	4	9
Terminal 1	C22	321	1	1	2
Terminal 1	C23	319	5	5	10
Terminal 1	C23	320	3	4	7
Terminal 1	C23	321	1	2	3
Terminal 1	C24	319	5	5	10
Terminal 1	C24	320	6	2	8
Terminal 1	C24	321	2	2	4
Terminal 1	C25	319	4	5	9
Terminal 1	C25	320	4	5	9
Terminal 1	C25	321	1	1	2
Terminal 1	C26	319	3	3	6
Terminal 1	C26	320	3	4	7
Terminal 1	C26	321	3	3	6
Terminal 1	C27	319	4	4	8
Terminal 1	C27	320	2	3	5
Terminal 1	C27	321	2	2	4
Terminal 1	C28	319	7	7	14
Terminal 1	C28	320	2	3	5
Terminal 1	C29	319	4	4	8
Terminal 1	C29	320	3	4	7
Terminal 1	C29	321	1	1	2
Terminal 1	C3	319	10	10	20
Terminal 1	C3	320	2	2	4

Terminal	Gate	AC Type	Arrivals	Departures	Total
Terminal 1	C3	321	1	1	2
Terminal 1	C30	319	1	2	3
Terminal 1	C30	320	7	8	15
Terminal 1	C31	319	7	7	14
Terminal 1	C31	320	2	4	6
Terminal 1	C32	319	3	3	6
Terminal 1	C32	320	3	3	6
Terminal 1	C32	321	2	2	4
Terminal 1	C4	319	4	4	8
Terminal 1	C4	320	4	5	9
Terminal 1	C4	321	1	2	3
Terminal 1	C5	319	3	5	8
Terminal 1	C5	320	2	2	4
Terminal 1	C5	321	3	3	6
Terminal 1	C6	319	5	6	11
Terminal 1	C6	320	4	5	9
Terminal 1	C6	321	1	1	2
Terminal 1	C7	319	4	3	7
Terminal 1	C7	320	3	2	5
Terminal 1	C7	321	2	1	3
Terminal 1	C8	319	7	6	13
Terminal 1	C8	320	4	2	6
Terminal 1	C8	321	1	2	3
Terminal 1	C9	319	6	6	12
Terminal 1	C9	320	4	3	7
Terminal 2	E1	319	5	5	10
Terminal 2	E10	717	7	7	14
Terminal 2	E11	319	-	1	1
Terminal 2	E11	320	1	2	3
Terminal 2	E12	717	8	8	16
Terminal 2	E13	319	3	2	5
Terminal 2	E13	320	2	1	3
Terminal 2	E14	320	10	8	18
Terminal 2	E15	320	4	6	10
Terminal 2	E2	737	5	6	11
Terminal 2	E2A	737	6	5	11
Terminal 2	E3	737	7	6	13
Terminal 2	E4	737	5	5	10
Terminal 2	E6	737	5	5	10

Terminal	Gate	AC Type	Arrivals	Departures	Total
Terminal 2	E7	319	9	8	17
Terminal 2	E8	737	2	3	5
Terminal 2	E9	319	8	9	17
Terminal 2	E9	320	1	1	2
Terminal 2	F10	737	1	2	3
Terminal 2	F10	739	1	1	2
Terminal 2	F11	319	3	2	5
Terminal 2	F11	320	1	2	3
Terminal 2	F12	737	3	4	7
Terminal 2	F12	CR9	1	1	2
Terminal 2	F14	737	3	1	4
Terminal 2	F14	739	2	2	4
Terminal 2	F14	CR9	3	3	6
Terminal 2	F1A	E145	10	10	20
Terminal 2	F1B	CR9	1	1	2
Terminal 2	F1B	E145	12	11	23
Terminal 2	F1C	E145	12	12	24
Terminal 2	F2A	E145	10	11	21
Terminal 2	F2B	E145	10	9	19
Terminal 2	F2C	E145	8	9	17
Terminal 2	F2D	E145	2	2	4
Terminal 2	F3A	CR9	1	1	2
Terminal 2	F3A	E145	3	4	7
Terminal 2	F3B	E145	9	9	18
Terminal 2	F3C	E145	8	8	16
Terminal 2	F3D	E145	10	10	20
Terminal 2	F4	321	7	8	15
Terminal 2	F5	321	9	9	18
Terminal 2	F6	737	1	1	2
Terminal 2	F6	739	1	2	3
Terminal 2	F6	CR9	3	2	5
Terminal 2	F7	321	2	1	3
Terminal 2	F8	737	2	2	4
Terminal 2	F8	739	2	1	3
Terminal 2	F8	CR9	1	2	3
Terminal 2	F9	319	1	2	3
Terminal 2	F9	320	3	2	5
South Cargo	FE-1	31F	1	1	2
South Cargo	FE-1	38F	1	-	1

Terminal	Gate	AC Type	Arrivals	Departures	Total
South Cargo	FE-1	74F	5	6	11
South Cargo	FE-1	75F	2	-	2
South Cargo	FE-1	A3F	3	3	6
South Cargo	FE-1	M1F	1	2	3
South Cargo	FE-10	38F	-	1	1
South Cargo	FE-10	74F	4	-	4
South Cargo	FE-10	75F	-	1	1
South Cargo	FE-10	76F	1	2	3
South Cargo	FE-10	A3F	2	-	2
South Cargo	FE-10	M1F	-	1	1
South Cargo	FE-11	75F	-	1	1
South Cargo	FE-11	76F	3	1	4
South Cargo	FE-11	A3F	1	2	3
South Cargo	FE-2	31F	1	-	1
South Cargo	FE-2	74F	3	2	5
South Cargo	FE-2	A3F	1	2	3
South Cargo	FE-2	M1F	1	-	1
South Cargo	FE-3	31F	-	1	1
South Cargo	FE-3	74F	-	2	2
South Cargo	FE-3	76F	-	1	1
South Cargo	FE-3	M1F	1	1	2
South Cargo	FE-4	74F	-	1	1
Terminal 3	G10	CR7	1	1	2
Terminal 3	G10	CR9	3	3	6
Terminal 3	G10	E145	1	1	2
Terminal 3	G11	CR7	6	6	12
Terminal 3	G11	CR9	2	3	5
Terminal 3	G11	E145	2	2	4
Terminal 3	G12	CR7	2	2	4
Terminal 3	G12	CR9	3	3	6
Terminal 3	G12	E145	1	1	2
Terminal 3	G14	CR7	4	4	8
Terminal 3	G14	CR9	3	3	6
Terminal 3	G14	E145	2	2	4
Terminal 3	G14A	CR7	5	5	10
Terminal 3	G14A	CR9	3	3	6
Terminal 3	G14A	E145	1	1	2
Terminal 3	G15	CR7	1	1	2
Terminal 3	G15	CR9	1	1	2

Terminal	Gate	AC Type	Arrivals	Departures	Total
Terminal 3	G16	CR7	4	4	8
Terminal 3	G16	CR9	2	2	4
Terminal 3	G17	CR7	3	3	6
Terminal 3	G17	CR9	3	3	6
Terminal 3	G17	E145	2	2	4
Terminal 3	G18	CR7	4	4	8
Terminal 3	G18	CR9	2	2	4
Terminal 3	G18	E145	1	1	2
Terminal 3	G19	CR7	1	1	2
Terminal 3	G19	CR9	2	2	4
Terminal 3	G19	E145	1	1	2
Terminal 3	G19A	CR7	4	4	8
Terminal 3	G19A	CR9	5	5	10
Terminal 3	G19A	E145	3	3	6
Terminal 3	G1A	CR7	2	2	4
Terminal 3	G1A	E145	6	6	12
Terminal 3	G1B	CR7	2	1	3
Terminal 3	G1B	CR9	6	6	12
Terminal 3	G1B	E145	1	1	2
Terminal 3	G20	CR7	6	6	12
Terminal 3	G20	CR9	2	2	4
Terminal 3	G20	E145	2	2	4
Terminal 3	G21	CR7	3	3	6
Terminal 3	G21	CR9	4	4	8
Terminal 3	G21	E145	1	1	2
Terminal 3	G2A	CR7	4	4	8
Terminal 3	G2A	CR9	-	1	1
Terminal 3	G2A	E145	4	3	7
Terminal 3	G2B	CR7	2	2	4
Terminal 3	G2B	CR9	4	4	8
Terminal 3	G2B	E145	1	1	2
Terminal 3	G3	CR7	3	3	6
Terminal 3	G3	E145	2	2	4
Terminal 3	G4	CR7	1	1	2
Terminal 3	G4	CR9	4	4	8
Terminal 3	G4	E145	1	1	2
Terminal 3	G5	CR7	4	4	8
Terminal 3	G5	CR9	4	4	8
Terminal 3	G6	CR7	3	3	6

Terminal	Gate	AC Type	Arrivals	Departures	Total
Terminal 3	G6	CR9	1	1	2
Terminal 3	G6	E145	2	2	4
Terminal 3	G7	CR7	2	2	4
Terminal 3	G7	CR9	3	3	6
Terminal 3	G7	E145	2	2	4
Terminal 3	G8	CR7	4	4	8
Terminal 3	G8	CR9	2	2	4
Terminal 3	G8	E145	1	1	2
Terminal 3	G9	CR7	3	3	6
Terminal 3	G9	CR9	1	1	2
Terminal 3	G9	E145	2	1	3
General Aviation	GA1	C210	-	2	2
General Aviation	GA1	C550	1	-	1
General Aviation	GA1	C560	1	2	3
General Aviation	GA1	C56X	1	-	1
General Aviation	GA1	C650	-	3	3
General Aviation	GA1	C750	3	1	4
General Aviation	GA1	CL60	-	1	1
General Aviation	GA1	F2TH	1	1	2
General Aviation	GA1	FA20	1	-	1
General Aviation	GA1	G4	1	-	1
General Aviation	GA1	G5	1	1	2
General Aviation	GA1	H25C	3	2	5
General Aviation	GA1	LJ30	-	1	1
General Aviation	GA1	LJ35	1	-	1
General Aviation	GA1	LJ45	-	1	1
General Aviation	GA1	LJ55	1	-	1
General Aviation	GA1	LJ60	-	1	1
General Aviation	GA10	C550	1	1	2
General Aviation	GA10	C560	-	2	2
General Aviation	GA10	C650	4	-	4
General Aviation	GA10	C750	1	4	5
General Aviation	GA10	CL60	1	-	1
General Aviation	GA10	F2TH	-	1	1
General Aviation	GA10	G4	-	1	1
General Aviation	GA10	G5	1	-	1
General Aviation	GA10	H25C	-	1	1
General Aviation	GA10	LJ35	1	1	2
General Aviation	GA10	LJ55	-	1	1

Terminal	Gate	AC Type	Arrivals	Departures	Total
General Aviation	GA10	LJ60	2	-	2
General Aviation	GA11	BE58	1	-	1
General Aviation	GA11	C550	-	1	1
General Aviation	GA11	C650	2	1	3
General Aviation	GA11	C750	2	2	4
General Aviation	GA11	CL60	1	-	1
General Aviation	GA11	F900	-	1	1
General Aviation	GA11	FA50	-	1	1
General Aviation	GA11	G5	-	1	1
General Aviation	GA11	H25C	-	1	1
General Aviation	GA11	LJ55	1	1	2
General Aviation	GA11	LJ60	-	1	1
General Aviation	GA12	BE40	1	-	1
General Aviation	GA12	BE58	-	1	1
General Aviation	GA12	C210	1	-	1
General Aviation	GA12	C560	1	-	1
General Aviation	GA12	C56X	-	1	1
General Aviation	GA12	C650	-	1	1
General Aviation	GA12	C750	1	-	1
General Aviation	GA12	FA50	1	-	1
General Aviation	GA12	G5	-	1	1
General Aviation	GA12	H25C	1	-	1
General Aviation	GA12	LJ30	-	1	1
General Aviation	GA12	LJ55	-	1	1
General Aviation	GA12	LJ60	1	-	1
General Aviation	GA13	BE40	-	1	1
General Aviation	GA13	C210	1	-	1
General Aviation	GA13	C560	1	-	1
General Aviation	GA13	C650	-	1	1
General Aviation	GA13	CL60	-	1	1
General Aviation	GA13	FA50	1	-	1
General Aviation	GA13	G5	1	-	1
General Aviation	GA13	LJ30	1	-	1
General Aviation	GA13	LJ60	1	-	1
General Aviation	GA14	C56X	-	1	1
General Aviation	GA14	F900	1	1	2
General Aviation	GA14	FA20	-	1	1
General Aviation	GA14	LJ45	1	-	1
General Aviation	GA14	LJ55	1	-	1

Terminal	Gate	AC Type	Arrivals	Departures	Total
General Aviation	GA14	LJ60	-	1	1
General Aviation	GA2	C56X	1	-	1
General Aviation	GA2	F2TH	1	-	1
General Aviation	GA2	G5	1	-	1
General Aviation	GA3	LJ35	-	1	1
General Aviation	GA4	C560	1	-	1
Terminal 3	H1	738	8	16	24
Terminal 3	H1	739	-	1	1
Terminal 3	H10	738	6	11	17
Terminal 3	H10	739	1	2	3
Terminal 3	H11A	738	7	10	17
Terminal 3	H11A	739	1	1	2
Terminal 3	H11A	763	-	1	1
Terminal 3	H11B	738	7	13	20
Terminal 3	H12	738	6	8	14
Terminal 3	H12	739	3	3	6
Terminal 3	H13	738	6	7	13
Terminal 3	H13	739	3	2	5
Terminal 3	H14	738	7	7	14
Terminal 3	H14	739	1	1	2
Terminal 3	H15	738	6	7	13
Terminal 3	H15	739	1	2	3
Terminal 3	H16	738	8	8	16
Terminal 3	H16	739	3	2	5
Terminal 3	H17	738	8	9	17
Terminal 3	H18	738	3	4	7
Terminal 3	H18	739	2	2	4
Terminal 3	H2	738	11	11	22
Terminal 3	H2	739	1	1	2
Terminal 3	H3	738	11	10	21
Terminal 3	H4	738	9	9	18
Terminal 3	H4	739	1	1	2
Terminal 3	H5	738	9	10	19
Terminal 3	H6	738	9	8	17
Terminal 3	H6	739	1	1	2
Terminal 3	H8	738	5	7	12
Terminal 3	H8	739	1	2	3
Terminal 3	H9	738	5	4	9
Terminal 3	H9	739	1	1	2

Terminal	Gate	AC Type	Arrivals	Departures	Total
Terminal 3	H9	763	-	1	1
Terminal 5/6	M1	737	-	3	3
Terminal 5/6	M1	763	-	4	4
Terminal 5/6	M10	343	1	1	2
Terminal 5/6	M10	346	1	1	2
Terminal 5/6	M11	321	1	1	2
Terminal 5/6	M11	737	1	1	2
Terminal 5/6	M11	763	1	-	1
Terminal 5/6	M12	321	1	-	1
Terminal 5/6	M12	332	1	1	2
Terminal 5/6	M12	343	1	1	2
Terminal 5/6	M12	744	1	1	2
Terminal 5/6	M13	320	1	1	2
Terminal 5/6	M13	772	1	1	2
Terminal 5/6	M15	320	1	1	2
Terminal 5/6	M15	380	1	1	2
Terminal 5/6	M15	737	1	1	2
Terminal 5/6	M16	332	1	-	1
Terminal 5/6	M16	380	-	1	1
Terminal 5/6	M17	333	2	-	2
Terminal 5/6	M17	342	1	-	1
Terminal 5/6	M17	738	1	-	1
Terminal 5/6	M17	744	1	1	2
Terminal 5/6	M18	320	4	3	7
Terminal 5/6	M18	321	1	1	2
Terminal 5/6	M18	737	2	1	3
Terminal 5/6	M18	763	2	-	2
Terminal 5/6	M19	320	1	-	1
Terminal 5/6	M19	343	1	1	2
Terminal 5/6	M19	737	2	1	3
Terminal 5/6	M19	74M	1	-	1
Terminal 5/6	M19	763	1	-	1
Terminal 5/6	M2	737	-	1	1
Terminal 5/6	M2	763	1	1	2
Terminal 5/6	M20	319	1	1	2
Terminal 5/6	M20	343	1	1	2
Terminal 5/6	M20	737	3	1	4
Terminal 5/6	M20	763	1	-	1
Terminal 5/6	M21	343	1	-	1

Terminal	Gate	AC Type	Arrivals	Departures	Total
Terminal 5/6	M21	772	1	1	2
Terminal 5/6	M22	320	1	-	1
Terminal 5/6	M22	343	1	-	1
Terminal 5/6	M22	744	1	1	2
Terminal 5/6	M22	763	1	1	2
Terminal 5/6	M23	380	1	-	1
Terminal 5/6	M24	320	1	1	2
Terminal 5/6	M25	320	1	1	2
Terminal 5/6	M26	737	3	3	6
Terminal 5/6	M27	737	5	4	9
Terminal 5/6	M28	737	3	4	7
Terminal 5/6	M29	CR7	3	2	5
Terminal 5/6	M29	CR9	1	-	1
Terminal 5/6	M3	319	1	1	2
Terminal 5/6	M3	763	2	-	2
Terminal 5/6	M30	CR7	5	7	12
Terminal 5/6	M30	CR9	1	1	2
Terminal 5/6	M31	738	-	1	1
Terminal 5/6	M31	739	3	4	7
Terminal 5/6	M32	738	5	5	10
Terminal 5/6	M32	739	2	1	3
Terminal 5/6	M33	738	2	1	3
Terminal 5/6	M33	739	3	3	6
Terminal 5/6	M34	738	3	3	6
Terminal 5/6	M34	739	5	5	10
Terminal 5/6	M4	332	-	1	1
Terminal 5/6	M4	342	-	1	1
Terminal 5/6	M4	343	1	-	1
Terminal 5/6	M4	744	-	1	1
Terminal 5/6	M4	74M	-	1	1
Terminal 5/6	M4	772	1	-	1
Terminal 5/6	M4	773	1	1	2
Terminal 5/6	M5	343	-	1	1
Terminal 5/6	M5	763	1	-	1
Terminal 5/6	M5	772	2	1	3
Terminal 5/6	M5	773	1	1	2
Terminal 5/6	M7	333	-	1	1
Terminal 5/6	M7	343	1	-	1
Terminal 5/6	M7	744	1	-	1

Terminal	Gate	AC Type	Arrivals	Departures	Total
Terminal 5/6	M7	763	1	-	1
Terminal 5/6	M8	343	1	2	3
Terminal 5/6	M8	346	1	-	1
Terminal 5/6	M8	744	1	1	2
Terminal 5/6	M9	343	1	1	2
Terminal 5/6	M9	772	1	-	1
Terminal 7	JET-1	319	3	3	6
Terminal 7	JET-1	CRJ	3	3	6
Terminal 7	JET-10	320	1	-	1
Terminal 7	JET-10	763	2	1	3
Terminal 7	JET-10	772	2	3	5
Terminal 7	JET-10	773	1	1	2
Terminal 7	JET-11	744	2	-	2
Terminal 7	JET-11	763	1	1	2
Terminal 7	JET-12	320	2	-	2
Terminal 7	JET-12	744	-	1	1
Terminal 7	JET-12	763	-	1	1
Terminal 7	JET-12	772	1	-	1
Terminal 7	JET-13	CR7	1	1	2
Terminal 7	JET-13	CR9	5	5	10
Terminal 7	JET-13	CRJ	1	2	3
Terminal 7	JET-14	CR7	4	4	8
Terminal 7	JET-14	CR9	2	2	4
Terminal 7	JET-14	CRJ	5	5	10
Terminal 7	JET-15	CR7	6	6	12
Terminal 7	JET-15	CR9	1	1	2
Terminal 7	JET-15	CRJ	3	3	6
Terminal 7	JET-16	CR7	3	3	6
Terminal 7	JET-16	CRJ	2	2	4
Terminal 7	JET-17	319	1	-	1
Terminal 7	JET-17	320	1	-	1
Terminal 7	JET-17	772	3	-	3
Terminal 7	JET-19	320	2	1	3
Terminal 7	JET-2	319	3	2	5
Terminal 7	JET-21	380	1	-	1
Terminal 7	JET-21	744	-	1	1
Terminal 7	JET-22	319	1	-	1
Terminal 7	JET-22	744	1	-	1
Terminal 7	JET-23	320	2	-	2

Terminal	Gate	AC Type	Arrivals	Departures	Total
Terminal 7	JET-25	346	1	-	1
Terminal 7	JET-25	763	1	-	1
Terminal 7	JET-26	320	1	-	1
Terminal 7	JET-28	772	2	-	2
Terminal 7	JET-29	CR7	1	1	2
Terminal 7	JET-29	CRJ	1	1	2
Terminal 7	JET-3	319	1	2	3
Terminal 7	JET-3	CRJ	1	1	2
Terminal 7	JET-31	319	3	3	6
Terminal 7	JET-31	320	1	1	2
Terminal 7	JET-31	CRJ	3	2	5
Terminal 7	JET-34	CR7	2	2	4
Terminal 7	JET-34	CR9	3	2	5
Terminal 7	JET-4	319	1	1	2
Terminal 7	JET-4	CRJ	3	4	7
Terminal 7	JET-40	772	5	1	6
Terminal 7	JET-41	320	1	-	1
Terminal 7	JET-41	332	1	-	1
Terminal 7	JET-41	343	1	1	2
Terminal 7	JET-41	380	1	1	2
Terminal 7	JET-41	744	-	1	1
Terminal 7	JET-41	772	1	2	3
Terminal 7	JET-42	320	2	-	2
Terminal 7	JET-42	380	-	1	1
Terminal 7	JET-42	772	1	-	1
Terminal 7	JET-43	772	2	-	2
Terminal 7	JET-44	763	1	-	1
Terminal 7	JET-45	744	1	-	1
Terminal 7	JET-45	763	1	-	1
Terminal 7	JET-46	CR7	2	2	4
Terminal 7	JET-46	CR9	1	1	2
Terminal 7	JET-46	CRJ	2	2	4
Terminal 7	JET-7	320	1	4	5
Terminal 7	JET-7	321	-	1	1
Terminal 7	JET-7	333	1	2	3
Terminal 7	JET-7	343	-	1	1
Terminal 7	JET-7	380	1	1	2
Terminal 7	JET-7	744	-	2	2
Terminal 7	JET-7	763	1	4	5

Terminal	Gate	AC Type	Arrivals	Departures	Total
Terminal 7	JET-7	772	1	1	2
Terminal 7	JET-8	320	1	5	6
Terminal 7	JET-8	332	-	1	1
Terminal 7	JET-8	346	1	1	2
Terminal 7	JET-8	763	1	2	3
Terminal 7	JET-8	772	1	2	3
Terminal 7	JET-9	320	1	1	2
Terminal 7	JET-9	346	-	1	1
Terminal 7	JET-9	772	2	4	6
Terminal 3	K1	738	9	10	19
Terminal 3	K10	738	6	6	12
Terminal 3	K10	739	1	1	2
Terminal 3	K11	738	2	1	3
Terminal 3	K12	738	3	2	5
Terminal 3	K13	738	12	10	22
Terminal 3	K14	737	1	1	2
Terminal 3	K15	738	4	3	7
Terminal 3	K15	763	2	-	2
Terminal 3	K16	738	10	9	19
Terminal 3	K17	738	6	6	12
Terminal 3	K17	739	2	1	3
Terminal 3	K18	738	6	7	13
Terminal 3	K18	739	1	1	2
Terminal 3	K19	738	7	7	14
Terminal 3	K2	738	10	9	19
Terminal 3	K2	739	-	1	1
Terminal 3	K20	772	3	4	7
Terminal 3	K21	738	9	8	17
Terminal 3	K21	739	2	1	3
Terminal 3	K22	738	9	8	17
Terminal 3	K22	739	-	1	1
Terminal 3	K3	738	8	8	16
Terminal 3	K3	739	-	1	1
Terminal 3	K4	738	10	8	18
Terminal 3	K5	738	6	6	12
Terminal 3	K6A	738	6	6	12
Terminal 3	K6A	739	2	-	2
Terminal 3	K6B	738	6	5	11
Terminal 3	K6B	739	1	1	2

Terminal	Gate	AC Type	Arrivals	Departures	Total
Terminal 3	K7	738	6	5	11
Terminal 3	K8	738	7	6	13
Terminal 3	K8	739	1	1	2
Terminal 3	K9	738	6	5	11
Terminal 3	L10	738	1	3	4
Terminal 3	L10	763	2	8	10
Terminal 3	L2	738	-	1	1
Terminal 3	L2	763	1	8	9
Terminal 3	L4	738	2	-	2
Terminal 3	L4	739	-	1	1
Terminal 3	L4	763	1	1	2
Terminal 3	L6	738	1	-	1
Terminal 3	L6	763	3	2	5
Terminal 3	L8	738	1	-	1
Terminal 3	L8	763	1	-	1
Terminal 3	L8	772	2	7	9
Terminal 7	RJ-1	CR7	3	3	6
Terminal 7	RJ-1	CR9	2	2	4
Terminal 7	RJ-1	CRJ	3	3	6
Terminal 7	RJ-10	CR7	6	6	12
Terminal 7	RJ-10	CR9	3	3	6
Terminal 7	RJ-10	CRJ	1	1	2
Terminal 7	RJ-11	CR7	4	4	8
Terminal 7	RJ-11	CRJ	4	4	8
Terminal 7	RJ-12	CR7	2	2	4
Terminal 7	RJ-12	CR9	2	2	4
Terminal 7	RJ-12	CRJ	3	3	6
Terminal 7	RJ-13	CR7	2	2	4
Terminal 7	RJ-13	CR9	1	1	2
Terminal 7	RJ-13	CRJ	4	4	8
Terminal 7	RJ-14	CR7	5	5	10
Terminal 7	RJ-14	CR9	3	2	5
Terminal 7	RJ-14	CRJ	5	5	10
Terminal 7	RJ-15	CR7	7	7	14
Terminal 7	RJ-15	CRJ	3	3	6
Terminal 7	RJ-16	CR7	5	5	10
Terminal 7	RJ-16	CR9	2	2	4
Terminal 7	RJ-16	CRJ	3	3	6
Terminal 7	RJ-17	CR7	4	4	8

Terminal	Gate	AC Type	Arrivals	Departures	Total
Terminal 7	RJ-17	CR9	1	1	2
Terminal 7	RJ-17	CRJ	2	2	4
Terminal 7	RJ-18	CR7	3	3	6
Terminal 7	RJ-18	CR9	2	2	4
Terminal 7	RJ-18	CRJ	5	5	10
Terminal 7	RJ-19	CR7	5	5	10
Terminal 7	RJ-19	CR9	2	2	4
Terminal 7	RJ-19	CRJ	3	3	6
Terminal 7	RJ-2	CR7	5	5	10
Terminal 7	RJ-2	CR9	1	1	2
Terminal 7	RJ-2	CRJ	4	4	8
Terminal 7	RJ-20	CR7	4	4	8
Terminal 7	RJ-20	CR9	1	1	2
Terminal 7	RJ-20	CRJ	4	4	8
Terminal 7	RJ-23	CR7	3	3	6
Terminal 7	RJ-23	CR9	1	1	2
Terminal 7	RJ-23	CRJ	2	2	4
Terminal 7	RJ-24	CR7	1	1	2
Terminal 7	RJ-24	CR9	1	1	2
Terminal 7	RJ-24	CRJ	3	3	6
Terminal 7	RJ-25	CR7	2	2	4
Terminal 7	RJ-25	CR9	1	1	2
Terminal 7	RJ-25	CRJ	5	5	10
Terminal 7	RJ-26	CR7	5	5	10
Terminal 7	RJ-26	CR9	1	1	2
Terminal 7	RJ-26	CRJ	2	2	4
Terminal 7	RJ-3	CR7	5	5	10
Terminal 7	RJ-3	CR9	1	1	2
Terminal 7	RJ-3	CRJ	4	5	9
Terminal 7	RJ-4	CR7	1	1	2
Terminal 7	RJ-4	CR9	2	3	5
Terminal 7	RJ-4	CRJ	3	3	6
Terminal 7	RJ-5	CR7	5	5	10
Terminal 7	RJ-5	CR9	2	2	4
Terminal 7	RJ-5	CRJ	2	1	3
Terminal 7	RJ-6	CR7	4	4	8
Terminal 7	RJ-6	CR9	3	3	6
Terminal 7	RJ-6	CRJ	3	3	6
Terminal 7	RJ-7	CR7	2	2	4

Terminal	Gate	AC Type	Arrivals	Departures	Total
Terminal 7	RJ-7	CR9	3	3	6
Terminal 7	RJ-7	CRJ	5	5	10
Terminal 7	RJ-8	CR7	2	2	4
Terminal 7	RJ-8	CR9	3	3	6
Terminal 7	RJ-8	CRJ	5	5	10
Terminal 7	RJ-9	CR7	2	2	4
Terminal 7	RJ-9	CR9	2	2	4
Terminal 7	RJ-9	CRJ	6	6	12
Terminal 4	T4-11	738	1	-	1
Terminal 4	T4-11	763	3	-	3
Terminal 4	T4-12	738	6	-	6
Terminal 4	T4-13	343	-	1	1
Terminal 4	T4-13	772	3	3	6
Terminal 4	T4-5	346	-	1	1
Terminal 4	T4-5	772	3	1	4
Terminal 4	T4-7	738	2	-	2
Terminal 4	T4-8	738	3	-	3
Terminal 4	T4-8	739	1	-	1
Terminal 4	T4-9	763	4	-	4

Table 7
TAAM Project Name: data\projects\taam\KORD_EIS_EXP33.prj

DEPARTURE RUNWAY QUEUES

MAXIMUM NUMBER OF AIRCRAFT IN QUEUE

DAY	HOUR	09R	10R	10L	10	9
17	0	-	-	1	-	-
17	1	-	-	1	-	-
17	2	-	-	1	-	-
17	3	-	-	1	1	-
17	4	-	-	1	-	-
17	5	-	-	-	-	-
17	6	1	-	10	-	-
17	7	4	1	7	-	-
17	8	11	2	6	-	-
17	9	11	10	7	-	-
17	10	4	3	2	-	-
17	11	10	8	12	-	-
17	12	15	5	8	-	-
17	13	9	6	8	-	-
17	14	6	4	7	-	-
17	15	8	10	4	-	-
17	16	8	5	6	-	1
17	17	6	7	10	1	-
17	18	12	3	18	1	-
17	19	10	4	5	-	-
17	20	11	2	11	-	1
17	21	5	1	7	-	-
17	22	-	1	9	-	1
17	23	-	-	7	-	-

ATTACHMENT D-2
TPC CONCURRENCE MEMORANDUM FOR 2018 ALTERNATIVE C TAAM EXPERIMENTS

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TPC

MEMORANDUM

To:	Richard Kula—FAA
CC:	Mike MacMullen, Amy Hanson, Suzan McCarthy—FAA Bill Willkie, Bill Dunlay—LFA Bruce Jacobson, Brian Mohr, Laura Kramer—CMT
From:	Chris Oswald
Date:	March 30, 2004
Subject:	TPC Concurrence with Final 2018 TAAM Experiments

The TPC has reviewed the final 2018 With Project TAAM experiments that were provided to the TPC by Ricondo & Associates on March 19, 2004. The purpose of this memorandum is to document that simulation comments provided to Ricondo & Associates in the TPC memorandum, "Review of TAAM Experiments for 2018 No Action and With Project Airfield and Airspace Configurations", dated February 20, 2004 (the TPC 2018 TAAM Review Memo) were addressed.

The TPC reviewed the final 2018 TAAM experiments on March 25, 2004, concurrently with the FAA Air Traffic Workgroup that participated in the initial reviews of the 2018 experiments. The FAA Air Traffic Workgroup included representatives from the Chicago O'Hare Airport Traffic Control Tower (ORD Tower), Chicago O'Hare Terminal Radar Approach Control Facility (C90), and the Chicago Air Route Traffic Control Center (ZAU).

In the review of the final TAAM runs, the TPC completed the following:

- Reviewed Ricondo & Associates' written responses to TPC and Air Traffic Workgroup comments summarized in a memorandum dated March 18, 2004. A copy of this memorandum is attached.
- Performed targeted reviews of TAAM simulation animations to verify that improvements that Ricondo & Associates had made to the model were implemented correctly.
- Reviewed TAAM results packages provided by Ricondo & Associates to verify that runway flow rates and aircraft delays were reasonable.

On the basis of this review, TPC has determined:

- Ricondo & Associates has incorporated the recommended changes as requested by TPC and Air Traffic as outlined in the TPC 2018 TAAM Review Memo, dated February 20, 2004.
- Arrival and departure runway flow rates provided by the TAAM experiments for 2018 With Project are reasonable.
- Delay results appear to be internally consistent (e.g. Delays for VFR experiments were lower than IFR experiments).
- The final 2018 TAAM runs are acceptable for use in the EIS technical analysis and Ricondo & Associates should proceed with production of the final 2018 TAAM data package.

As the EIS proceeds, FAA and TPC reserve the right to modify/change any aspect of the Environmental Impact Statement to ensure an accurate portrayal of future conditions anticipated for the proposed action.

RICONDO
& ASSOCIATES

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By

MEMORANDUM

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MAR 2004
By

Date: March 18, 2004

To: Rich Kula, FAA
Chris Oswald, LFA

CC: Brian Mohr, CMT
Shawn Kinder, R&A

From: Jon Fleweger, R&A

Subject: Response to Comments - TAAM 2018 "With Project" Experiments

Enclosed for your review are the TAAM 2018 "with project" experiments. Included on the compact disc are TAAM input files for each of six experiments in UNIX format (*.tar) and the associated Summary Results Files in Adobe Acrobat format (*.pdf). Each experiment has been revised to be consistent with the comments received and agreements made during discussions on February 6, 2004, as partially documented in the Third Party Consultant's (TPC) memorandum of February 20, 2004.

The following reiterates the comments received and highlights the actions taken by City of Chicago's Consultant Team (CCT) in regard to the subject simulations. The responses are organized by general comment (GC) and by experiment, with the comments presented numerically and responses following below each in italics.

General Comments

GC-1: *This comment is specific to the "no action" scenario and will be addressed in future correspondence.*

GC-2: In With Project experiments; pushbacks from Taxiways M1, M2, and M3 should block Taxiway B. Due to the realignment of Taxiway A in the With Project airfield configuration, pushbacks from Gates K18 and K20 *will not* block Taxiway A in the With Project experiments.

> *For simulation purposes, the pushback stubs attached to gates M1, M2, and M3 must be left in place so that when checking to see if they can start to push back, aircraft at these gates can see a viable path and start to pushback. If these stubs are eliminated completely, the aircraft are never able to become active at the gate due to the traffic level on Taxiway B and the settings in the usage file that specify aircraft at gates always give way to aircraft on taxiways and taxilanes. To approximate the behavior of pushing back onto Taxiway B, a stop and wait taxiway rule was implemented such*

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that aircraft taxiing south on Taxiway B south of the bridge stop and wait for any aircraft pushing back at gates M1, M2, and M3. Although visually, aircraft pushing back from gates M1, M2, and M3 will not pushback onto Taxiway B, aircraft on Taxiway B will behave as if they had.

GC-3: Inconsistent assumptions were used regarding the times when fly quiet arrival procedures ended in the morning. In some experiments, it appeared that fly quiet arrival procedures were "turned off" around 6:00 a.m. In other experiments, the procedures were "turned off" around 6:30 a.m. Consistent assumptions regarding cessation of fly quiet arrival procedures should be used in all experiments.

Assumptions regarding the cessation of noise abatement have been standardized across all experiments. Noise abatement departure rules end at 6:00 a.m. and noise abatement arrival rules end at 6:15 a.m.

GC-4: Aircraft pushing back from gates at the southern end of the east side of Concourse C should push back onto the UAL apron, blocking the "C-line" on the apron.

It was agreed that this issue has minor, if any, impacts on the simulation results. Moreover, it appears that the current simulation methodology does delay pushbacks to some extent, as aircraft that have pushed back wait to enter the flow of traffic transiting the UAL apron. Consequently, the TPC and CCT agreed that changes to simulation rules to address this comment would be unnecessary.

WP-1: C90 and ZAU representatives commented that arrivals that are off-loaded from high and wide STARs to "standard" STARs would need to be separated by at least 15 nautical miles in-trail in order to provide gaps in these arrival streams that could be used by departures that need to cross through these "standard" STARS.

The need for this in-trail restriction arises from the inability to assure that departures can cross (climb) over the "standard" STARS with sufficient vertical separation. These in-trial restrictions apply to arrivals from BEARZ in Parallel 27 configurations and BENKY/NEWRK in Parallel 9 configurations.

It was agreed that CCT would explore a variety of methods to incorporate these in-trail separations into its With Project experiments. Through a series of tests, CCT determined that the desired in-trail separations could not be applied directly due to limitations of the model's sequencing logic. As an alternative, the CCT has limited the flow of aircraft offloaded to the "standard" STARs to achieve a similar effect to imposing 15 nautical mile in-trail separations on these STARs.

Accordingly, the number of aircraft offloading from a high-and-wide STAR to the standard STAR was limited to 10 at any given time. While separations weren't *visible in the simulation, the 10 aircraft limit approximated a flow rate corresponding to aircraft arriving 15 NM in-trail.*

Experiment Comments

Experiment 33-1: Rules governing departure crossings of Runway 10C appeared to be implemented incorrectly due to a typographical error in these rules.

The typographical error in the taxiway rules has been corrected.

Experiments 33-2, 51-2, 54-6: The predominant flow through the apron should be from north to south (i.e., enter northport/exit southport). Exceptions to this rule are as follows:

- Arrivals inbound to Gates C1, C3, E10, E12, and E14 can approach their gates from southport. (Note that this means other north side Concourse E gates should approach their gates via the northport).
- Departures outbound from Gates C29, C31, B16, B17, B18, and the "banana" can taxi outbound via northport/Taxiway H.

The predominant flow through the UAL apron was set to north-to-south. Arrivals inbound to Gates C1, C3, E10, E12, and E14 were allowed to approach their gates from the south. Departures outbound from Gates C29, C31, B16, B17, B18 and the "banana" were allowed to taxi out to the north.

Experiment 51-1, 54-3: Rules governing departure crossings of Runway 10C need to be verified to ensure the typographical error from Experiment 33 has not been repeated.

Rules governing departure crossings of Runway 10C were verified to be correct.

Experiments 52-1, 53-1, 55-2: The predominant flow through the UAL apron should be from south to north to avoid the Runway 27L departure queue, which occasionally builds back on Taxiway H beyond Terminal 1. The exceptions to the south to north flow are as follows:

Departures outbound from Gates C1, C3, E10, E12, and E14 can exit the apron via southport. Arrivals inbound to Gates C29, C31, B16, B17, B18 and the "banana" can taxi to their gates via northport.

The predominant flow through the UAL apron was set to south-to-north. Departures outbound from Gates C1, C3, E10, E12, and E14 were allowed to taxi out to the *south. Arrivals inbound to Gates C29, C31, B16, B17, B18, and the "banana" were allowed to approach their gates from the north.*

<u>Experiments 52-2, 53-2</u>: With the increase in demand associated with the 2018 schedule, the departure queue for Runway 27L was occasionally built along Taxiway H blocking access to Gates B18 through B22 on the "banana". ORD Tower representatives asked whether it would be possible to refine the stop and wait rule that has been developed to prevent the Runway 27L queue from blocking access to the UAL apron to prevent blockage of Gates B18 through B22.

In order to prevent blocking of the "banana" gates B18 through B22, the stop and wait rule was modified such that more space is required on Taxiway H between the east end of the "banana" gates and the west end of the Runway 27L departure queue before more departures are released from the hold point at Taxiway H west of Taxiway E.

<u>Experiment 54-1:</u> Dual high and wide tracks to Runways 9C and 10C were observed in use. Arrivals from the southwest should not use high and wide approach from KELSI to Runway 10C when high and wide approaches are being flown into Runway 9C from the northwest and southwest corners. Rather, these arrivals should offload to the more standard "close-in" STAR instead.

Offload arrivals from the southwest to Runway 10C were restricted to the more standard "close-in" STAR over NEWRK. The high and wide STAR to Runway 10C over KELSI was removed.

<u>Experiment 54-2</u>: Climbs of southbound Runway 10L departures out of 5,000 starts prior to reaching the BEARZ arrival track, causing these arrivals to climb into and through the BEARZ track.

Climbs of southbound Runway 10L departures crossing the BEARZ arrival track were restricted to 5,000 ft. until 10.0 NM from ORD.

<u>Experiment 54-4</u>: Departures from Runway 10L that use common initial departure headings were observed to depart with insufficient in-trail separations. An observed example of this phenomenon occurs at 8:04 a.m. and involves EGF1998 and EGF721D, which both depart on a common initial heading of 090. Departures that rely on common headings immediately after takeoff should be separated by 3 nautical miles, even if they diverge later.

A rule (10L_3NM_DEPSEP) was added specifying that departures from Runway 10L using the same initial heading be separated by 3.0 NM.

Experiment 54-5: At least three pairs of double-decker landings were observed on Runway 9C during the 12:00 p.m. hour, which appeared to be a more concentrated distribution of double-decker landings than in other experiments.

CCT investigated various possible reasons for the observed behavior, but could not identify a causal factor. Corresponding, no additional action was taken.

Experiment 55-1: Air Traffic and TPC representatives request confirmation that stop-and-wait rules similar to those applied to Runway 10L departure crossings of Runway 10C have been applied to Runway 27R arrival crossings of Runway 27C.

Stop-and-wait rules similar to those applied to Runway 10L departure crossings of Runway 10C in Parallel 9s were applied to Runway 27R arrival crossings of Runway 27C.

Experiment 55-3: With the increase in demand associated with the 2018 schedule, the departure queue for Runway 27L was occasionally built along Taxiway H blocking access to Gates B18 through B22 on the "banana". ORD Tower representatives asked whether it would be possible to refine the stop and wait rule that has been developed to prevent the Runway 27L queue from blocking access to the UAL apron to prevent blockage of Gates B18 through B22.

As indicated in the response to comments 52-2 and 53-2, it is possible to revise the stop and wait rule. However, due to the reduced demand levels associated with the IFR environment there does not appear to be a compelling need to change the rule in this experiment.

Upon receipt of FAA/TPC concurrence, or other form of notice to proceed, CCT will begin production of the 2018 TAAM "with project" data package. While we anticipate production to take no more then ten (10) working days, please note that the data package cannot be completed until a decision is made by the FAA/TPC as to what the annualized weighting factors are for the 2018 runway operating configurations.

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ATTACHMENT D-3
FAA AIR TRAFFIC MEMO

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U.S. Department of Transportation
Federal Aviation Administration

Memorandum

Subject: INFORMATION: Air Traffic Assessment of TAAM Simulations

Date: DEC 16 2004

From: Air Traffic Program Manager, O'Hare Modernization Program, AGL-503

Reply to Attn. of:

To: Barry Cooper, Manager, Chicago Area Modernization Program Office
Phil Smithmeyer, Manager, Chicago Airports District Office

This letter summarizes the process the Federal Aviation Administration (FAA) Air Traffic (AT) workgroup used in the review of the TAAM (Total Airspace and Airport Modeller) simulation experiments supporting the environmental consequences analyses as part of the O'Hare Modernization Environmental Impact Statement (EIS). The EIS is utilizing the TAAM simulation program to determine delay and travel time data for aircraft operations at differing activity levels for each design year. The TAAM model produces results in both visual and tabular form for a given design year that provides the delay and travel time associated with that airport layout modeled. The reviews were coordinated within the EIS, and conducted in conjunction with the FAA's Airports Division and the FAA Third Party Contractor (TPC) as described below.

The AT workgroup was composed of both FAA Management and National Air Traffic Controllers Association (NATCA) representatives from O'Hare Tower (ORD), Chicago TRACON (C90), and Chicago Center (ZAU). The review process followed was unprecedented in scope and duration for any single airport modeling project in the US for an EIS. Together this workgroup represents more than 135 cumulative years of experience with and knowledge of the real-world air traffic operational issues in the Chicago area. They provided the operational perspective on the TAAM model's depictions of current and future operational procedures for O'Hare International Airport.

The review process began in October 2003 with review of the experimental design and operating assumptions, and continued as TAAM experiment data and simulation experiments were received from the City of Chicago Consulting Team (CCT). The FAA review process was structured to include the concurrent review of the simulation results by the FAA AT workgroup, the FAA Airports Division representative for the OMP, and the FAA TPC representative. The review process included an evaluation by the TPC of the TAAM input and output data for each design year. The AT workgroup provided the operational perspective on the TAAM simulation experiment animations relative to air traffic operational procedures that would be utilized for each design year and each proposed airport layout plan modeled. The review process was ongoing through July 2004.

The simulation experiment design was developed to represent various phases of the proposed airport development alternatives. The design year configurations studied were developed as part of the EIS process. Design year 2002 represents the existing airfield, or baseline. The proposed operational configurations, combined, represent those currently and projected to be used a majority of the time at ORD, in both VFR (Visual Flight Rules) and IFR (Instrument Flight Rules) conditions.

The AT workgroup reviewed operating assumptions, including airspace routings, taxi routings, runway/fix assignments, gating assumptions, and throughput numbers. There were 14 review sessions encompassing 73 simulation experiments of the following scenarios:

1) No Action Alternatives – Design Years 2002, 2007, 2009, 2013, and 2018;

2) With Project Alternatives – Design Years 2007, 2009, 2013, and 2018;

3) Alternatives "X" and "Y" – Design years 2013, 2018.

Each simulation experiment included animations that displayed the planned operation of aircraft on the airport for that design year. During each review session the AT workgroup reviewed the animations and results. Any issues or inconsistencies with the TAAM animations were discussed with the AT Program Manager for the O'Hare Modernization Program (OMP) and the Airports Division representative for the OMP, and the FAA TPC representative. Collectively, at the end of the day, all issues were discussed with the CCT, who then made appropriate modifications to the experiments and delivered the results. The AT workgroup, Airports Division representative for the OMP, and the FAA TPC representative would then reconvene and review the revised TAAM results. At the end of each review session, a memorandum was issued to the City for resolution. This process was repeated for each design year, No Action alternatives, With Project alternatives, and Alternative X and Alternative Y. During the review process, the FAA identified numerous issues of sufficient magnitude that required modifications to and a rerun of a majority of the TAAM experiments. The AT workgroup, Airports Division representative for the OMP, and the TPC representative then reconvened to review the experiments in the manner discussed above. As a final review of the accuracy of the animations, prior to the final data packages being produced by the CCT, members of this same workgroup conducted a "spot check" of the issues noted in the initial and subsequent reviews, in order to ensure that the modifications had been incorporated and were satisfactorily reflected in the TAAM experiments.

The AT workgroup review of the TAAM simulation experiments required more than 1,400 staff-hours. The majority of time was spent in detailed review of each simulation animation, in close coordination with the Airports Division representative for the OMP and the FAA TPC. As stated above, each issue raised by the AT workgroup was discussed with the Airports Division representative and the TPC and reviewed with the CCT. Based on the AT workgroup's comprehensive review, Air Traffic is satisfied that TAAM modeling simulation experiments depict a reasonable representation of how the proposed design year airport layouts would be operated, if implemented at O'Hare International Airport.

If you have any questions, please do not hesitate to contact me at (847) 294-7574.

Suzan McCarthy

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ATTACHMENT D-4

FAA CHICAGO AIRPORTS DISTRICT OFFICE MEMO

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U.S. Department of Transportation
Federal Aviation Administration

Memorandum

Subject: Total Airspace & Airport Modeller (TAAM) Simulation Review Process Employed For the O'Hare Modernization Environmental Impact Statement

Date: December 17, 2004

From: Richard M. Kula
Community Planner
Chicago Airports District Office, CHI-ADO-615

To: Barry D. Cooper,
Manager, Chicago Area Modernization Program Office

Philip M. Smithmeyer,
Manager, Chicago Airports District Office

Purpose of Memorandum

This memorandum summarizes the process the Federal Aviation Administration (FAA) Airports Division utilized as the lead in the review of the Total Airspace and Airport Modeller (TAAM) simulation modeling. The TAAM modeling was used to support the environmental modeling as part of the O'Hare Modernization Environmental Impact Statement (EIS). TAAM simulation modeling was also used to determine the relative performance between the various airfield development alternatives identified through the screening process. The EIS is using output from the TAAM simulation modeling as partial input into the Noise Analysis and Air Quality analysis. This memorandum also summarizes my experience in conducting simulation studies for airports in the nation and the world.

Review Team Composition

The FAA established a team of airfield and airspace experts to review and confirm the assumptions and results of the TAAM analysis. The review team consisted of an Air Traffic workgroup, the FAA's Third Party Contractor and a representative from the Airports Division. Specifically, the team consisted of both FAA Management and National Air Traffic Controller Association (NATCA) representatives from O'Hare Tower (ORD), the Chicago Terminal Radar Approach Control Facility (TRACON), and the Chicago Center (ZAU). In addition, the FAA's Third Party Contractor and FAA Airports Division participated in all review sessions. Together the air traffic workgroup represents more than 135 cumulative years of experience with and knowledge of the real-world air traffic operational issues in the Chicago area. I was the Airports Division representative with over 12 years of computer simulation experience.

Simulation Review Process Employed

The City of Chicago (via their contractor Ricondo & Associates) developed and performed the simulation experiments required for the O'Hare Modernization EIS at the direction, oversight, review and approval of the FAA. The review process was structured to include an operational review by the Air Traffic workgroup and a technical review by the FAA's Third Party Contractor and FAA Airports

Division. In this manner, assumptions, inputs and results of each simulation experiments were reviewed as a team and any questions or issues that were raised could be investigated and documented for discussions with the actual modelers.

The review process began in October 2003 with a review of the experimental design and detailed operating assumptions for the TAAM analysis submitted by the City of Chicago. The FAA provided comments to the City and the process was underway. In response to an agreed upon schedule the City submitted sets of TAAM experiments to the FAA for review.

The review team reviewed operating assumptions (including airspace routings, taxi routes, runway/fix assignments, gating assumptions, and output numbers including throughput statistics) for four airfield development alternatives as defined through the screening process. Included in this review were the following:

1. No Action Alternative – Do nothing.
2. With Project Alternative – City of Chicago's proposal,
3. Alternative X Alternative – No south east/west runway (Alternative D in the DEIS), and
4. Alternative Y Alternative – No south east/west runway replaced with a runway oriented in the 12/30 direction (Alternative G in the DEIS).

For environmental analysis the No Action Alternative was modeled at the 2007, 2009, 2013, and 2018 forecast activity levels. The With Project Alternative was modeled at the 2007, 2009, 2013, and 2018 forecast activity levels. Alternative X and Alternative Y were modeled at the 2013 and 2018 activity level. In addition the 2002 Baseline was modeled.

The review team assembled and reviewed simulation outputs and simulation animations for each experiment. The FAA documented comments and provided them to the City for discussion. A meeting was scheduled with the City to review each comment. It was documented how the City was going to address each comment and the City modified the specific TAAM experiment for re-submittal to the FAA along with written documentation on how each issues was approached. The FAA re-assembled the review team and performed a spot check on each specific issue that was raised during the initial (or any subsequent) review session to ensure that the issue had been addressed to the satisfaction of the review team. When the team was satisfied that each set of experiments were modeled appropriately, the FAA issued a memo to the City of Chicago concurring with each set and providing direction for the City to begin production of the detailed data packages that would be used by the Noise and Air Quality teams.

Simulation Modeling Experience for Airports Division

I have over 12 years of simulation modeling experience in conducting simulation studies for some of the busiest airports in the nation and the world. My background also includes exposure to or use of several industry standard and accepted fast time delay and travel time computer simulation models including the FAA's Airport and Airspace Model (SIMMOD), Landrum & Brown's AIRSIM & GATESIM models, the FAA's Airfield Delay Simulation Model (ADSIM), and Preston Aviation Solutions Total Airspace & Airport Modeller (TAAM). This breadth of modeling experience across several models has allowed me to evaluate all aspects of this simulation analysis in a meaningful way.

To begin with, I have significant modeling experience at Chicago O'Hare. I have been involved primarily as a technical simulation analyst or as technical project leader for every simulation project at O'Hare since 1992, with the exception of the O'Hare Master Plan Study Simulation Analysis. This includes involvement with the O'Hare Airport Layout Plan Airfield/Airspace Simulation Analysis conducted in 1994 and 1995, the Chicago Terminal Airspace Project Simulation Analysis in 1997 and 1998, the World Gateway Program Simulation Analysis evaluated in 1999 and 2000, the O'Hare Delay Task Force Study in 2001 and 2002, and the Terminal 6 Simulation Analysis conducted in 2002. This experience at O'Hare alone has provided me a wealth of experience of all issues that the Airport currently faces along with a historical perspective on how the Airport has performed operationally for over 12 years.

As mentioned above, I have also had significant experience in simulation modeling at airports throughout the nation and the world. Since 1992 I have been involved as a technical simulation analyst or as the technical project leader for projects at Los Angeles International Airport, Detroit Metropolitan Wayne County Airport, Philadelphia International Airport, Denver International Airport, Phoenix Sky Harbor International Airport, Incheon International Airport (Seoul, Korea) and Sydney International Airport (Australia). This experience has allowed me develop a broad wealth of knowledge on not only Airport specific issues but specific industry standard modeling methodologies and processes.

Unprecedented Effort of Modeling and Review

Based on my experience with simulation modeling, I believe the process the FAA employed in this TAAM analysis is unprecedented in the scope and breadth of modeling effort and review for any simulation analysis ever conducted for any single airport. At the end of the TAAM analysis, 109 TAAM experiments were conducted in support of this EIS (73 experiments specifically for the environmental analysis and 36 experiments to support the Alternatives Chapter). The FAA AT workgroup invested approximately 1,400 hours reviewing assumptions, draft results, animations, and final results as part of the process. The FAA's Third Party Contractor invested approximately 650 hours and I alone invested approximately 600 total hours in this effort.

Conclusion

Based on my simulation modeling experience, I believe that this computer simulation modeling analysis is the most comprehensive analysis from a modeling and review level of effort perspective ever conducted to date for a single airport and produced the most reliable, and accurate representative results possible for each of the alternatives evaluated.

If you have any questions or need any additional information, please feel free to contact me.

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